How To Examine For Life Insurance

By Frank Ring

HOW TO EXAMINE

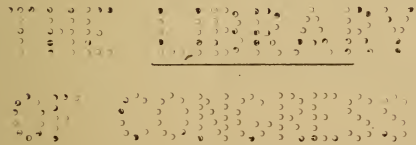
FOR

LIFE INSURANCE.

BY

FRANK RING, M. D.,

Medical Examiner for John Hancock Mutual Life Insurance Co., of Boston; Prudential Life Insurance Co., of Newark, N. J.; Security Trust and Life Insurance Co., of New York.



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PREFACE.

An effort has been made in this book to present the essentials of life-insurance examinations, and the impressions left upon an examiner in the field are here given.

No attempt is made to speak *ex cathedra* or to assume a position in the exalted sphere or "solar-walk" occupied by the Medical Director.

However, a free hand has been used to grasp authoritative data wherever found.

The instructions of the various Medical Directors have been canvassed, their public utterances before medico-insurance bodies have been gone over carefully, and many selections made.

A large correspondence with Medical Directors, made necessary by the lapses and shortcomings of the writer, has been dissected with a view to presenting salient points, and prevent others from making like errors. In this connection, the writer wishes to pay tribute to the long-suffering patience, and kindly toleration which he has observed as an inherent quality in the character of the Medical Director.

It is estimated that the sum of nearly $5,000,000 is paid annually by the old-line companies to their medical examiners, and a correspondingly large amount is paid by the lodge and assessment companies.

Life insurance is one of the few business enterprises in which the medical profession is consulted, and it should be the aim of the examiner to be worthy of this trust, by rendering valuable service in return. A rough computa-

tion shows that the insurance mortality is better than the general mortality for the first five years, so that if the companies could get *everybody* to insure, they could readily dispense with the medical examiners.

It should be the aim of the examiners to avail themselves of the old and approved methods of diagnosis, and to be on the lookout for, and utilize every new method as it becomes authenticated as of value in making selection of lives, so that the insurance mortality may be still further improved.

In getting together the material for this little work, the writer has used what might be termed a composite form, representing the questions asked by the different companies. He has aimed to give the main features which the answers should embrace, in order to satisfy the requirements of the home office.

With the hope that it may prove of some assistance to his co-workers in the field he submits it to their kindly consideration.

THE AUTHOR.

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Method of Examination. — While an examiner may be too easy in accepting the statements of a proposer about his own condition and his family history, he may, on the contrary, be too rigid and suspicious. It is to be hoped that most people are fairly honest; all will answer all inquiries to the best of their ability, naturally making the best of themselves, but not making any attempt at concealment or deception. I have known cases, however, in which the examiner has approached his task somewhat in the manner of a detective officer, treating the applicant as though he were bent on deceiving the examiner, and generally conducting the examination in a way which, though sometimes excusable or even necessary in the examination of military recruits or suspected malingerers, can very rarely be necessary in examinations for life assurance. Especially is delicacy and tact required when the subject is a woman. In these cases personal inspection must necessarily be less minute than in the case of male applicants (unless, of course, the examiner sees some very special reason for searching inquiry), and cross-examination of the statements of a female proposer cannot usually be pushed so far as it may properly be in the case of a man. The fact that a woman cannot usually be so rigidly examined as a man

is recognized by the offices, and is one of the reasons why in some companies a small extra premium is required in the case of all female lives. —*By Wm. Hughes, F. I. A. of the Prudential Insurance Co. of England.*

The uses of a form for the report of medical examinations may be summed as follows: (1) The form is useful as a guide to the medical examiner; (2) it specifies the points to which his attention should be specifically directed; (3) it allows a proper estimate to be made of the applicant's health; (4) it gives useful indications for re-insurance; and (5) it serves as a basis for statistics.

In filling up the form, accuracy should be constantly aimed at; because, if questions are left unanswered, or not answered correctly, or answered in the wrong space, the application will be returned for correction. This will call for a letter by the Medical Director, asking for further information, and the medical examiner will be, practically, called upon to do his work over again. He will have the extra trouble of seeking the applicant again, and asking him to sign additional papers, which may call for hesitation on the part of the applicant, and he may decline to sign, from some motive intervening between the doctor's two visits. All of this trouble might have been avoided by the exercise of due care in the first instance.

THE MEDICAL EXAMINER'S POSITION AND OPPORTUNITY.

The examination of an applicant for life assurance differs, of course, very materially from the ordinary examination of a patient seeking relief from pain or the cure of disease. A patient is usually eager to assist his

adviser by detailing his symptoms and affording every information that the adviser may require. He does not shrink from the most minute inspection, and readily answers the most delicate questions that may be put to him. The applicant for assurance, on the other hand, will often do nothing, or as little as possible, to assist the examiner in the discovery of defects, and resents as impertinence questions as to his condition and habits, which he would gladly answer if he were seeking relief from suffering. He naturally wishes to make the best of himself, and is unwilling to believe that he is otherwise than physically perfect. The examiner, therefore, has to adopt methods of questioning an applicant somewhat differing from those he would adopt in the examination of a patient. The report which he is to make being solely for the guidance of the office, it is not desirable that he should inform the applicant of the result of his examination. If he finds any defects he should not mention them to the applicant, and, on the other hand, if he finds everything satisfactory, it is not desirable that he should say so. The applicant is very likely to say at the conclusion of the examination, "Well, Doctor, I suppose I am all right — you will recommend the office to accept me?" But even if this be actually the case, the doctor will do well to avoid answering the question. For the office may see fit to decline the proposer, or to require an increased premium on other than medical grounds, and if the examiner has announced to examinee his intention of making a favorable report, it may cause some embarrassment. To such a question the doctor should reply that the report is made confidentially to the office, and that he makes it a rule not to inform applicants of the

result, good or bad. This will, of course, be of service to the doctor in those cases where the result of the examination is unsatisfactory. The same reply should of course be given to the agent of the company, if he should be so unwise as to inquire of the doctor what report he has given.— *Wm. Hughes, F. I. A.*

It would be impertinent for me to make any remarks here on the actual conduct of the examination, so far as the purely medical and technical part of it is concerned. The examiner uses his medical learning, skill and experience, and in discovering the actual state of the organs, the health and constitution of the applicant, and fills in the details on the form supplied, for the information and consideration of the principal medical adviser of the board of directors. There are, however, some other points to which the examiner has to direct his attention, on which I may be permitted to make some remarks. These are principally the history of past illness, the family history and the important questions of habits. With regard to the first two, the examiner is dependent almost entirely upon the personal statements of the proposer. If the examiner accepts these too readily, he is liable to be misled. It must be the experience of most examiners that applicants on being questioned as to past illnesses will frequently assert that they have never been ill — "never taken a bottle of medicine in their lives" — or have never had anything worse than a cold, a headache or a toothache. And yet in such cases a little quiet talk and an adroit question or two will sometimes result in recalling to the applicant's memory some occasions in which he has had to seek medical advice, and on pursuing the subject it may result in the discovery of some cir-

cumstance which may materially affect the examiner's opinion.

FULL NAME.— This should be self-explanatory, but as a matter of fact, examinations are being constantly received and as regularly sent back for amendment, in which only the initials of the first name are given.

The time and energy which is lost in remedying this oversight, which is entirely due to carelessness, might be employed to good advantage and yield a substantial return to the doctor and save many imprecations and much worry to the agent, where hopes of collecting a premium are thereby delayed, if not ruined. Its importance becomes evident as a means of identification, both before and after death. Frequently applicants will say that they have never been postponed or rejected by any company, but when the records of the Medical Directors' Association show the full name, place and date of birth, as well as family history and minute personal description, all doubt as to identity will be dispelled.

PLACE OF BIRTH.— This calls for the town and State, and if possible for the county, and is an additional link in the chain of identification, and also much appreciated by the companies in its bearing on statistics, a matter dear to the actuary's heart.

DATE OF BIRTH. — Be sure the exact day, month and year of birth is given, the medical examiner's statement being compared at the home office with the same item on the applicant's statement to the agent. Any disagreement will call forth correspondence which may necessitate a great deal of extra work on the part of the examiner in seeking out and finding the applicant to have the matter corrected. In country practice particularly, due care to

this detail will save many a long trip, for the doctor should be exact in this matter, so that the error may not be charged to him. The matter of age becomes one of dollars and cents. If an applicant is younger than the age at which he was insured, he is deprived of the increased amount to which his premium would entitle him at his true age. If he is older, the company insuring him is liable for a larger amount than would have been the case had his age been correctly given.

Residence. — This item should state the town, county and State, and, simple as it may seem, correspondence is sometimes had to settle a dispute between agents holding contracts in adjoining territory.

The writer once examined an applicant at the Planters' Hotel in St. Louis, and upon the authority of the applicant's statement that this hotel was his home, it was so stated in the examination paper. Subsequently, when the agent of the company in Chicago learned of the issuance of the policy, he sent information to the home office that this applicant lived at St. Elmo, Illinois, and hence came under the jurisdiction of the Chicago agent for the collection of renewal premiums. To adjust the difficulty, it was necessary for the superintendent of agencies to make a trip to personally investigate and decide the question. The *residence* of the applicant includes not only his home, but also the location of the house and the territory surrounding. In this view, is his home situated in a healthy location? That is, are there any malarial or other deleterious influences at work which will affect his good health and longevity? In this connection the examiner should, as far as possible, give the company the benefit of whatever knowledge he may possess regarding the sanitary

conditions of that part of the country at large in which he may reside, as well as the characteristic and particular classes of diseases peculiar to it.

In the case of an examination made away from the home-city of the applicant, a close inspection will follow before the policy is issued, and the examiner should, hence, be on his guard, for obvious reasons, and make more than a careful examination.

Present Occupation.—Exact information on this point is essential if a general term is used to describe an occupation, such as clerk, salesman, mechanic, driver, teamster, cooper, etc., the line of business in which the applicant is engaged must be added.

When technical terms are used, such as rougher, presser, cutter, roller, kilnman, electrician, or any other term that designates the duties of the party, he should invariably explain exactly what such duties are. Persons engaged in the following occupations are not regarded as desirable risks: Barkeepers, beer-bottlers, brewers (except those employed in the office or owning the brewery), cartridge makers, cotton factory operatives (unless foreman or superintendent), electric light or telephone linemen, file-finishers, file-grinders, glass-blowers, glass-gatherers, grain elevator employee, grinder of edge tools, handler or maker of explosives, horse trainer, laborer (common), liquor dealer, retail lumberman (in woods), miner (except a foreman or superintendent), quarryman, raftsman, sailor (common), saloon-keeper, sawyer (knot), section hand, railroad and submarine operator, Turkish bath employee, telephone inspector, target man, well-digger, wrecking train laborer, zinc or lead works employee.

There are certain occupations more or less hazardous

because of the liability to accident or disease. This in the increased hazard is compensated for by an increased premium, base-ball players, bridge builders (large iron stretchers), engineer or officer of lake or sea vessels (first-class passenger vessels no extra), electric light trimmer, electric employees handling live wires, engineer or fireman of stationary engine (below the level of the ground), fisher (sea), foreman or superintendent of mines under ground, file-finisher, iron-workers (subject to extremes of heat), polishers (using emery wheel), stone-cutter, sawyer, buzz sawyer (circular), railroad employees — brakeman, freight, coal or mixed; conductor of freight, conductor of coal or mixed train; engineer of locomotive, fireman, switchman, coupler, yardmaster, active yardman. Before leaving the question of occupation, the examiner should thoroughly understand and describe the character of the surroundings, the tools used, the atmosphere and temperature of the workshop, of the danger of systemic poisoning, the quantity of dust in the air, the diseases to which the workers are especially predisposed, and their liability to accident. The occupation of merchant may be differently interpreted by different people in various parts of the country, and may not only include his legitimate business, but may be used to cover an illegitimate occupation, or a highly objectionable or hazardous one; for instance, the ordinary country merchant sometimes sells powder, and frequently has in connection with his store, a bar for the retailing of liquors. — *Prudential Instructions.*

OCCUPATION.

Occupation, Habits, and Mode of Life. — The occupation may be either injurious in itself or of such a nature

that no amount of precaution can make it harmless, or it may be injurious on account of its surroundings, or of the want of precaution on the part of the applicant, or on account of the temptation to bad habits to which it leads. But it may happen, and sometimes does, that a traveling salesman for a liquor house is a much better risk than a traveling salesman for a dry goods house. There is almost nothing so hard to get information about as the habits of a man. Often he has the reputation of being temperate, and still he may die from the effects of alcohol, because he has never been seen under its influence. On the other hand, he may be judged too severely, because it has become known that once in a while he takes too much. A man is less liable to impair his constitution if he takes too much once in a while than he who never takes too much but takes a considerable amount regularly. The great danger in the first case is that the intervals between the excesses are likely to become shorter, especially in young men when they take to drinking whisky. Although excesses in eating are not so common, and the immediate effects are not so injurious, still we know that many people shorten their lives by gourmandizing. An excessive amount of nourishing food taken daily is injurious after middle life, is apt to derange the digestive organs, and disturb the metabolism; it causes excessive deposits of fat in the subcutaneous tissue and in the vital organs.

The dangers arising from occupations or bad habits are, of course, greater for those who have an inherited or acquired tendency to certain diseases. To have a well established business and not be harassed by family or business cares is conducive to health and longevity; while the

constitution that under ordinary circumstances would have lasted many years longer, often breaks down at once under unusual strain, as in times of great political or religious excitement many people become insane who would not be thus affected in more tranquil times. — *Dr. Jos. Kucher, Medical Director, Germania Life.*

The saloon-keeper is exposed to late hours of business, to confinement in an atmosphere more or less heated and impure, especially toward night, and, above all, to the ever-present temptation to over-indulgence in intoxicating drink. These causes seem to carry with them a largely increased liability to consumption, and to disease of every vital organ.

Former Occupation. — This is asked to afford an index to any impairment which may have been contracted while applicant was engaged in an unusual occupation.

Do you contemplate a change of residence or occupation?

The answer to this question sometimes throws light upon some latent trouble, which might not be disclosed unless the applicant was adroitly led to incriminating response.

Have you ever sought a change of climate or occupation on account of your health?

The examiner is often put on his guard by this response, as to the remaining effects of the former diagnosis of threatened or beginning phthisis or rheumatism.

Are you now in good health?

This is a corollary to the preceding questions, and sometimes causes the applicant to take the doctor into his confidence, to the benefit of the company.

Have you been obliged to consult a doctor at any time during the last ten years? If so, when, and for what?

An affirmative answer to this question should be fol-

lowed by a relation of all essential details of each spell of sickness of which the applicant may have complained, giving duration, severity, and sequelæ.

When, and for what, did you last consult a doctor?

Notwithstanding a negative answer to the preceding question, applicants will often give an important history of previous illness dating within a short time of the examination.

Are you now under a doctor's care? If so, for what?

While this is self-explanatory, the failure to give the essential details, often occasions correspondence which might be prevented, by supplying the probable diagnosis, cause, symptoms and prognosis of the affection of which the applicant complains.

If any disease is active the applicant is not insurable.

A sufficient length of time must elapse to show that he has returned to a condition of health in all cases where the sickness is curable.

Name and residence of your usual medical attendant?

This affords a means of enlightenment on many points which might otherwise remain obscure, and is a factor in the assurance as well as settlement of many policies.

Do you use ardent spirits, wines, or liquors? If so, to what extent — average quantity each day?

This is one of the most perplexing questions to be answered, and probably one of the most important. It should be remembered that an excessive drinker will rarely admit the fact.

The denial of excess *may* be made innocently, the applicant not knowing that the amount consumed is excessive. Hence, the average quantity used daily of malt liquors, wines and spirits will determine the point. If

there is intention to deceive, no reliance can be placed upon any statements made by the applicant. It is advisable to use extra effort to develop the facts relating to this point, and some companies are so strict in this matter that they authorize the examiner to invoke the aid of the "Inspection Department" to gather information relating to it direct to the company. It has been said that a daily use of liquors to a given amount of absolute alcohol may be allowable; but it is evident that no unvarying rule can be established. Some individuals can consume more others less, without apparent harm. Hence, each case must be considered on its merits, but no applicants are desired who use alcohol in any form to excess.

Have you ever used intoxicating liquors to excess?

In addition to this, some companies ask the question: *Have you used any so-called cure for the drinking or narcotic habit? If so, which and when?*

After recording the answer, the examiner should critically study the appearance of the individual; a moist, trembling tongue, flushed face, suffused eyes and uncertain, nervous movements, usually indicate free indulgence. Shifting occupation or place of employment, unclean, neglected apartments and untidy appearance, help to confirm the impression.

If a suspicion exists in the mind of the examiner, he should by all means, call attention to it. Be careful to state the kind of drink habitually used, and inquire, further, if any is taken before breakfast or in the morning. Remember that certain classes are especially prone to over-indulgence,— printers, hatters, plumbers, tailors, teamsters, moulders and those who are closely confined for long intervals and who work in ill-ventilated or over-

heated rooms, are apt to seek relief from the exhausting character of their work by the use of intoxicants.

HABITS OF INTEMPERANCE.

The question of habits in regard to temperance is one of the utmost importance in the selection of lives for assurance. The improvement in drinking habits among all classes of society which has taken place during the last quarter of a century has been very marked, and in the large majority of cases no kind of doubt will arise. But notwithstanding this, it is unhappily the case that although drinking to the extent of actual intoxication is comparatively rare, the habit of taking alcohol to an extent sufficient to seriously affect health and longevity is still sufficiently prevalent to make it necessary to watch carefully for any indications of intemperance that may exist. On this subject it is useless to place any reliance on the mere statement of applicants. No man ever admits that he is intemperate, or even that he is careless or imprudent. A man who will readily answer any other questions as to his health with the greatest candor, will often become reticent or evasive when the question of temperance is approached. The examiner will of course readily recognize any of the usual physical indications of intemperance that may exist in the eyes, hands or tongue of the applicant, or in his general appearance. Even where marked indications of this kind are not present there may be something in the general demeanor which may give rise to suspicion, and anything of this kind, however vague, should be noted on the report, so as to put the office on its guard. Even when the applicant states that he is a total abstainer, it is by no means conclusive. It may appear cynical to

say so, but a statement of this kind is in itself sometimes suspicious. Of course there are now many people who can truly assert that they have never tasted intoxicants, and many more who have become total abstainers entirely from conscientious motives; but, unfortunately, there are a great number whose present total abstinence has been adopted as a refuge from former intemperance, and which may be followed by relapse, in which the last state will be worse than the first. Inquiries should always be made with a view to ascertaining past as well as present habits. It is true that such inquiry is usually attended with difficulties, but the truth can in most cases be ascertained by careful and not too obtrusive questions as to the circumstances under which total abstinence was adopted. The experience derived from observation of many claims by death from diseases induced by intemperance has convinced me of the truth of these remarks, some of the worst of such cases having occurred with persons who, when making their proposals, gave themselves out as teetotalers. The statement was true at the time, and for the time; but the total abstinence was of a temporary character, preceded and followed by excessive drinking. It is on this matter that the "private friends' reports" are especially valuable. It is well known that every proposer for assurance is required to give the names of two friends who will answer a few questions as to their general knowledge of the applicant, especially as to their knowledge of past illness and as to past and present habits. Doubt has often been expressed as to the value of these reports. It is assumed that a man's friend will never be disposed to "give him away," to use a colloquial but very expressive phrase. To a great extent this is true;

but they will hardly ever say that a man is temperate if they know him to be otherwise. They will, however, frequently try to wrap up their statements in vague terms, which experience shows are sufficiently suspicious. The question as to habits is usually in the very direct form, "Is he sober and temperate?" It would be amusing, if it were not also rather pathetic, to note the answers frequently given to this simple question. "I have never seen him otherwise" — "So far as I know" — "Not a teetotaler" — "A moderate man," are common forms of reply. My deliberate opinion is that unless the answer to this simple question is an equally simple "Yes," the applicant is usually, I will not go so far as to say always, a man who at least exceeds the limits of prudence, even if he does not go so far as to get habitually intoxicated. — *An English Authority.*

Alcohol. — State quantity and daily consumption, giving the form whether in malt liquors, wines or spirits. There is no means by which men beginning to give way to alcoholic excess can with certainty be detected by the examiner who sees the applicant for the first time.

The shaking hand, the tremulous tongue, the story of the morning nausea are not always present. It is likewise difficult to detect the opium eater or the chloral drinker, and these persons in the beginning of the abuse of these drugs may be passed by any examiner as healthy lives. However, when the odor of alcohol or any other drug is noted, the attention of the medical department should be called to it, so that the services of the inspection department may be called in to determine the habits of the man actually as contrasted with his declaration as to his habits.

A guide as to alcoholic habits has been often gained by the specific gravity of the urine. If the man is a water drinker, he does not drink water to a sufficient extent to reduce the specific gravity, if he is an alcoholic drinker he will probably have had some alcohol which may not be detected on the breath, but will be manifested by the urinometer. If a history of excessive use of intoxicants is given, exact details should be stated — *when* the habit was formed, how long it was continued, the period of time which has elapsed since the habit was discontinued, the apparent effect upon the health, and the present limit of indulgence.

Are you now using opium, morphine or other narcotics, or have you ever used them?

The opium or narcotic habit is undesirable. These vices are often carried on secretly, and the examiner should be on his guard to discover the characteristic symptoms, as the contracted pupil in opium poisoning, etc. Incidentally, it may be mentioned that the use by the examiner of "Tanret's" test for albumin will often disclose the use of morphine or other alkaloid by the applicant.

(TANRET'S SOLUTION).

Mercuric chloridi..... 1.35 grammes.
Kali iodidi..... 3.32 "
Acetic acid ....20.00 c. c.
Aquæ pur.....64.00 c. c.

To what extent do you use tobacco?

Tobacco, if used to an inordinate degree, has an unfavorable effect upon the nervous system and the heart. The drug seldom leaves an organic trace, but the functional effects are often very evident while they are present.

This refers to tobacco in any form, including cigarettes, which often contain opium. The applicant should be postponed, especially if there is the so-called "tobacco-heart," or if the nervous system has been unduly impressed.

Has any proposal or application to insure your life ever been made to any company or agent upon which a policy has not been issued, or is any now pending? If so, give full particulars.

This question is one most prolific in producing correspondence with the Home Office, as by means of the so-called "Clearing House" the medical directors have a list of all postponed and rejected cases since its institution. Having the names and other means of identification, they readily obtain the full particulars of the original examination upon which a rejection or postponement was based, and it is often amusing to observe the antics of the prevaricating applicant when he is confronted with the details of his early refusal by a company.

Upon being asked why he denied the rejection, the applicant frequently answers that he didn't deny it, that he "was never asked the question," that he "didn't know he was rejected," that he was told he was accepted, but refused to take the policy, etc., etc.

To guard against all the possibilities of such a case, it is good practice to ask the applicant a few preliminary questions, such as, have you ever been examined for life insurance? and upon his affirmative reply, ask if the companies all issued policies. This will call his attention to the pointed question on the blank, and if he denies a rejection *then*, he will be condemned out of his own mouth. The writer has known applicants to give the

names of companies which were said to have issued policies, whereas the record shows rejection by these same companies.

Has any medical examiner ever given an unfavorable opinion in regard to the insurableness of your life?

This is used to meet those cases where "trial examinations" are sometimes made by an examiner, at the request of an agent, but, as the applicant's signature is not obtained, no official record is made. The intelligent applicant, however, receives some practical instructions by means of which he may be presented in a more favorable light in a subsequent examination for another company.

To meet all the indications of this situation, the following question occurs on the form of one company — "*Has any physician ever given you an unfavorable opinion upon your life with reference to life insurance, formally or informally, with or without you making an application?*" If so, state particulars.

Family History. — Every medical man who has kept a record of his cases or who has examined the literature of the subject has undoubtedly been struck with the fact that a certain tendency to diseases which has manifested itself in the ancestry of his patients has also shown itself either as to the identical maladies or those germane to them in the patients themselves. This fact has become so noticeable that every scientific practitioner makes inquiry as to the diseases of which the immediate, as well as the collateral relatives have died, and according to the nearness of these relations and their numbers, so will be the probable intensity of the influence upon the individual.

If the patient is afflicted with an affection of the throat,

lungs or chest, and some of his relatives have died of diseases situated in either of these localities, suspicion is at once aroused that the patient may also have a similar affection in a latent state, and especially if the physical signs point that way, and the treatment is directed accordingly.

This principle is utilized in the business of insurance. Thus, although the party is supposed to be in health, else he would not be presented for examination, if his relatives have died of constitutional diseases, these diseases are given a certain value, and according to the nearness of kinship to the applicant and the number of instances in the family as above stated, so will be their influence upon the insurability of the applicant, and the life by so much will be impaired. Of course the age, personal history, occupation and environment of the individual must also be considered. The family history of the applicant is a very important factor therefore, and being so, it is desirable that the examiner shall record it carefully, getting from the applicant or other reliable sources all information upon this point possible, *filling up every part of the blank*, even the duration of the illness, which is so universally disregarded. It is well known, also, that certain families *die at or about certain ages* from causes other than constitutional. This is the vulnerable period in his family history as well as in himself. There may be in individuals as well as in families, therefore, a want of vitality, and such families and individuals are designated as "short lived." This has its value in the style of insurance which the company is willing to write.

If any member of the family is not well, or is delicate, state specifically, as near as possible, the nature of such

sickness; its cause, duration, and the present condition of such member.

If the parents of the applicant are blood relations, this fact should be stated, and if any characteristic effects are noticeable, state particulars.

In recording the causes of death, vague and unmeaning terms should not be used, such as "*general debility*," "*childbirth*," "*exposure*," "*female diseases*," "*complication of diseases*," and the like. Such terms convey no particular information to the home office and are apt to be, and often are, construed to mean a condition more grave than the real facts of the case would warrant. Examiners are requested to analyze the statements which the applicants make, and state specifically, as nearly as possible, the cause of death. In case of accident, state whether death was immediate or lingering, and the cause of the protracted illness. In case of confinement, state previous health, duration and other particulars when necessary, or whether such member of the family died in *labor*. A "complication of diseases" necessarily carries with it the idea of a protracted illness, with a numerous train of consecutive attacks, hence a suspicion of consumption, especially since such a large percentage of the human race die of this disease. Please be specific, if possible, and state the duration of diseases, as well as all other obtainable or necessary details. It should also be remembered that constitutional diseases often show themselves in the second generation. Please, therefore, be particular to record the causes of death, as nearly as possible, of the grandparents, as well as their ages at death.

The blank should be filled up by the examiner.

In ascertaining the family history, care should be ex-

ercised to get at the facts. Applicants sometimes wish to deceive as to the causes of death of certain members of the immediate family. Do not accept 'don't know' as a cause of death, unless you absolutely fail to elicit any information whatever. There are cases when an applicant cannot state the exact cause of death of some member of his immediate family, but where the examiner can obtain a more or less complete history of the last illness, which will eliminate any hereditary tendency or prove the contrary. If inquiry has been made and nothing ascertained, enter in the space devoted to remarks that such is the case. — *Manhattan Life Instructions.*

Have any of your near relatives (including uncles and aunts) *now or ever had consumption, cancer, apoplexy, or other hereditary disease?*

If an applicant is under 30 years of age, and it is discovered that one of his parents died of consumption, this being the only death in the immediate family, it should be the aim of the examiner to find out if *that parent's* history is clear of a tuberculous taint. If it is the applicant's father, he should inquire regarding the causes of death and the ages at death of the paternal grandparents, uncles and aunts; if the mother, the inquiry should be directed to the maternal grandparents, uncles and aunts.

Relating to consumption, special questions should be fitted to the occasion to elicit the details as to the environment and tuberculous relations. One company asks if the applicant has lived in a house or room occupied by a consumptive within the past three years, and another company wants to know if the applicant's wife (or husband, as the case may be) is a consumptive or in a low

condition of health. In the event of a consumptive history, the condition of the lymphatic system should be noted. If a history of apoplexy, the build and tendency of the applicant should be observed.

Which parent do you most resemble in appearance and constitution?

This is a natural appendix to the previous question, and any reference which might be suggested by the resemblance will be in order for submission.

Have you ever had, or been predisposed to, any of the following diseases or infirmities?

If so, state the full particulars, giving dates, severity, duration, nature and number of attacks.

Some companies require a separate yes or no to each ailment, while others use groups and brackets, calling for a separate answer to each.

Apoplexy. — In the event of an affirmative answer, it will be necessary to comply strictly with the directions above, and in addition inquire as to the disease of the vessels; cardiac hypertrophy, Bright's disease, syphilis, gout, and especially hereditary tendency, giving a good description of the applicant, so that the Medical Director may have a picture of the case before him. Aim to locate the cause of the attack.

Asthma. — If yes is answered give the details, and in addition examine for any possible sequel, such as emphysema, cardiac dilatation, dropsy, and supply information as to complications, as, for instance, chronic bronchitis, rheumatism, and valvular disease of the heart. State whether the applicant presents the appearance of a neurotic. Give the treatment employed for relief, as many cases are self-treated, and the nonchalant manner in which

asthmatics use chloroform, and other drugs thought to be dangerous, is surprising. * * * As bronchial asthma often runs in families, it would be desirable to draw forth any further information bearing on this tendency. Inquire as to any associated trouble, such as throat and nose affections, and among which may be mentioned enlarged tonsils, chronic catarrh, nasal polypi. State particulars regarding so-called rose asthma and hay asthma, and mention whether applicant has attacks of orthopnœa.

Bronchitis. — This calls for a searching examination of the chest, which should be thorough, to establish the fact that complete resolution has taken place, if the attack was acute, or to indicate the opposite if a chronic bronchitis supervened.

In cases of chronic bronchitis information will be in order as to any irritation which may keep it alive, and search should be made to exclude or locate the affections of which it is a frequent attendant, such as tuberculosis, cardiac valvular disease, especially mitral disease. Also Bright's disease.

Cancer or Tumor. — Of course no applicant will admit having cancer, nor present himself for examination if the condition is discoverable by means of clinical diagnosis. However, they will often admit having "tumors," so that the companies are then protected by means of differential diagnosis. The writer once had an applicant tell him that he "had a swelling on his *tit.*" Investigation disclosed what was assumed to be a lipoma over the mammary region, and while the applicant was postponed, as a precautionary measure, until after its removal, yet he has since obtained additional insurance, based upon

this diagnosis, which was established by its removal, and the prompt healing of the wound.

The hereditary tendency to cancer receives close scrutiny in deciding upon a risk, and women are looked upon with suspicion, in view of the difficulties attendant upon their examination for life insurance. Habitual smokers should be scanned closely as to the buccal conditions, as the companies have a large mortality score marked up against them.

The prevalence of hepatic cancer has induced some companies to insert a special question in their new form for examination, as follows: "*Is the hepatic area sensitive on percussion, or enlarged or diminished in size?*" The association of a cancerous and tuberculous family history in an applicant past forty years, gives rise to much concern in the minds of some Medical Directors, and rightly so, too, if a selection is to be made on the basis of medical science and experience.

Every tumor should be described in detail, giving its appearance, size, location, time of appearance, applicant's view as to the cause, also to what structures it is attached. The exhibition of one tumor, however small, should call for an examination as complete as that made on an applicant for admission to the army or navy, in order to exclude or disclose other tumors.

In the event that a tumor of any kind has been removed, it is desirable to know if a microscopic examination was made and its benign character assured. Also, are the lymphatic glands enlarged? Has any of them ever been so? Is the cicatrix resulting from the operation now in a healthy and normal condition.

Colic. — In view of its common occurrence, an appli-

cant otherwise reserved in his statements will often admit having had a colic. In this connection no pains should be spared in supplying the essential facts relating thereto, for the benefit of the Medical Director.

If the colic is admitted to be, or seems to be, hepatic, make inquiries as to the passage or symptoms of gall-stones, which are common in very fat people and in women, and are often associated with carcinoma of the liver and stomach. If jaundice is present, or has been present, test the urine for bile, and if the bile reaction is evident in the use of the nitric acid contact test, make suitable investigation to show the condition of the liver. If an operation for gall-stones has been performed, advise as to the nature of this operation, whether simply the removal of a gall-stone from the duct, or whether stones were removed entirely from the gall-bladder. In cases of intestinal colic, it is well to bear in mind the causes, which may be summarized as follows: constipation, lead-poison, syphilis, chronic malaria and rheumatism. Get a full description of the painful area. In lead colic look for the symptoms of slate-colored skin, dark gums showing a blue line, heavy breath with sweetish metallic odor, obstinate constipation, slow pulse and contracted abdominal walls.

In nephritic colic the pain follows the course of one or both ureters, shooting to the loins and thighs, with retraction of the testicle of the affected side, stranguary and bloody urine.

In uterine colic the pain is in the pelvis, and associated with menstrual disorders, of which a statement should be obtained from the attending physician.

In ovarian colic neuralgic pain is present over the

ovaries, with hysterical phenomena. No matter what kind of colic should be apprehended, it is safe to suspect and investigate as to a probable narcotic habit associated with or following it.

Coughs (Prolonged). — An applicant will occasionally be candid enough to say that he has a cough in winter, but that it don't amount to much. To clear up any speculation on the subject, the same care should be exercised as in a case of chronic bronchitis. The element of hoarseness should be looked into, and if present a close examination of the throat should be made, and the cause of the hoarseness ascertained, so that a correct estimate may be made as to its gravity. The possibility of its relation to syphilis should not be overlooked, and in proceeding to the throat examination it will be in order to observe in passing the condition of the buccal cavity, and to draw deduction from any lesion which may be active or remain as a sequel to former disease.

Report if he is subject to cough, expectoration, palpitation or difficulty in breathing.

Diseases of the Ear. — An authority from Chicago gives the following list as indicating an unfavorable prognosis, and hence a bar to life insurance: —

(1) Erysipelas of the auricle and meatus; (2) phlegmon, gangrene and ulcer of the auricle and meatus; (3) subperiosteal abscess; (4) perforation of the membrana tensa in the post-superior quadrant; (6) bulging post-superior wall of meatus; (7) cholesteatoma of the middle ear, attic, antrum or mastoid cells; (8) chronic suppuration with a recurrent pain over the mastoid; (9) chronic suppuration with polypi and granulation of the middle ear; (10) chronic suppuration with small perfo-

ration in the membrana tensa; (11) chronic suppuration with necrosis of the ossicles; (12) chronic suppuration with necrosis of the tympanic walls; (13) chronic suppuration with the membrana tympanum entirely gone and the ossicles buried in a mass of fibrous and granulation tissue at the floor of the attic; (14) pinhole perforation at the margin of the drum-head; (15) malignant disease of any part of the ear; (16) tubercular disease of the ear; (17) narrow external meatus following chronic suppuration; (18) sclerosis attended by marked deafness; (19) neoplasms of the middle ear; (20) hyperemia of the labyrinth attended by a rapid pulse may indicate tuberculosis, heart or kidney disease, and should be looked upon with suspicion; (21) hemorrhage into the labyrinth indicates caries of the petrous portion of the temporal bone, kidney or heart disease; (22) all pronounced labyrinthine inflammations, whether they are from extension of the middle ear disease or from infection arising during the course of the exanthematous fevers or from syphilis, should be barred; (23) inflammations and impairments of the auditory nerve from meningitis, cerebro-spinal meningitis, syphilis or brain tumors.

Discharge from the Ear. — Any defect of hearing should lead to inquiry for a history of otorrhœa. If such exists, or has existed, full particulars should be given. The date of its occurrence, the cause, the length of time continued, whether purulent, bloody or offensive, and whether periodic or continuous, should be ascertained and noted.

Examine carefully the local conditions and report your finding. Most companies will not issue upon an applicant who has had an aural discharge unless five years

has elapsed since its cessation, and the testimony of the physician who treated it is invoked to fix the date, and the exact diagnosis, etc.

Disease of the Brain. — This has a wide range, "from rush of blood to the head" to apoplexy, and while it is a rare thing for an applicant to admit that he has had a brain disorder, yet such rare cases call for extra care in presenting the true facts in the case. As a guide to help along the way, some companies ask an additional question, viz.: *Have you ever been under treatment in any asylum cure or sanitarium? If so, when, how long, and for what?*

Having learned the symptoms, endeavor to locate the cause.

The causes of "congestion of the brain" may be given as follows: "Increased cardiac action, the result of hypertrophy of the left ventricle; general plethora, excesses in eating and drinking; alcoholism, sunstroke, prolonged mental labor, diminished amount of arterial blood in other parts, the result of compression of the abdominal aorta, the ligation of a large artery, dilatation of the right heart, pressure upon the veins returning the cerebral blood. Injuries to the head, syphilis and gout should be borne in mind as causes of brain trouble, and should be investigated accordingly.

Disease of the Heart. — When a history of heart disease is given, inquiry should extend over its various parts, such as the pericardium, endocardium, the heart-muscle, the cavities and the valves.

Pericarditis and endocarditis may be secondary to rheumatism, pneumonia, pleurisy, erysipelas, Bright's disease or pyemia.

Myocarditis may be incident to endocardial or pericardial trouble, or to pyemia, typhoid fever, or emboli of the coronary arteries.

Dilatation of the heart may be caused by over-exertion, insufficiency of the valves, emphysema, chronic bronchitis, gout, Bright's disease.

Valvular lesions occur as a sequel to endocarditis, and have been traced to overwork and strain of the heart in early life. Other causes are syphilis, dilatation of the heart, atrophy or contraction of the heart, congenital malformation. If the examination develops any abnormality, describe it and fortify your judgment by every possible means. State the exact part of the heart which you find to be affected, and if the trouble is valvular, mention whether it is systolic or diastolic, and also state the position of the apex beat and its character. Test the effect of vigorous exertion by causing the applicant to practice some gymnastic exercise, such as walking up and down stairs, or hopping on one foot around the room. Mention if he has dyspnœa, palpitation, dropsy or other symptoms. Dr. Edgar Holden, of the Mutual Benefit Life, speaking of cardiac lesions following rheumatism, says of the eligibility of individuals for life insurance, using the term in a broad, general sense, without reference to insurance for definite term: "Perhaps we will do well in considering the subject, to reduce the question to simple terms, viz., *How far should the cardiac lesion following rheumatism affect the eligibility of applicants for life insurance, either for the full term or for a definite and limited number of years?* There can be no question that large numbers whose hearts have been impaired in a greater or less degree by

rheumatism continue to live and enjoy a good degree of health for many years. Now, it is not a difficult matter to estimate any man's chances of living for a few months or a few years, or even for ten or twenty years, but if we ask ourselves the question, 'Would a large number of such cases furnish a mortality below the tables?' We could hardly fail to say, 'No.' If, however, with certain heart lesions which nature has balanced by compensating changes, we are to weigh the chances of living for ten years we have before us an entirely different question. But the risk then becomes properly a sub-standard one, and there is another and grave element of doubt growing out of the fact that the diagnosis has been made by physicians whose actual knowledge of heart troubles we do not know. If we could see and examine ourselves all cases where heart lesion is suspected, we could with reasonable safety decide what amount and for what term insurance could be granted. I think, however, that consideration of applicants who have actual impairment of the heart involves extra hazard, and that for ordinary rates they should not be entertained."

Diseases of the Lungs.— The catechism under this heading should be thorough and should extend to the various affections to which the lungs are subject. This thoroughness is necessary, not only as an aid to the estimate of the risk by the medical director, but also as a guide to the physical examination by the examiner, so that all obscurities may be cleared up. It is difficult, under the most favorable conditions of examination, to locate slight lesions of the lung, but when one has a guide such as the correct diagnosis of previous lung trouble, the investigation becomes more satisfactory as to

accuracy in the present condition. Applicants will often say that they had some lung trouble previously, but claim not to know the name which was given to it. If asked if it was pneumonia, they will say no, but if the various synonyms of pneumonia are mentioned to them, they may recognize it under the name of congestion of the lungs, lung fever or winter fever, or capillary bronchitis, and upon further questioning they may go so far as to indicate the point at which the trouble was formerly located by the physician. It is needless to add that in this event or in the event of any suspected pulmonary trouble, the applicant should be stripped and the lungs completely gone over by all the means known to physical diagnosis. The subject should not be dismissed until the examiner feels absolutely certain of himself and his finding. Pluerisy is regarded by the laity as an ailment of slight import in its relation to mortality, and it will be sometimes admitted as a "stitch in the side." The relation between a former pleurisy and a subsequent phthisis has been traced in so many cases that the selection for insurance becomes concerned about it, unless every possible remaining feature may be excluded by examination. In the event that effusion has taken place, the case becomes the more grave from this point of view, and if aspiration or operation has been invoked to relieve the latter condition, it usually operates as a bar to any kind of insurance except sub standard. The apprehension of phthisis following as a sequel to a pleurisy seems to be gaining in the minds of medical directors, no doubt as a result of experience based upon claims paid.

Diseases of the Throat. — An admission of throat trouble takes with it the necessity of a local examination

of the parts, to indicate their present condition. The relation of the symptoms and circumstances attending the original attacks will help materially in clearing the way to a reliable conclusion as to cause and effect. One of the causes which should always be investigated is syphilis, and a description should be given of any lesion, active or as a sequel, to indicate this disease, which gives the medical director so much concern. In this connection chronic hoarseness should always be viewed with suspicion, both on account of its bearing on syphilis, as well as on tuberculosis.

Diseases of the Throat and Nose. — Attention will be frequently attracted by nasal obstruction. Usually this will be caused by hypertrophic rhinitis or septal deformity, but a closer examination may reveal the existence of a nasal polypi, retro-nasal fibro-mucus polypi and malignant tumors.

Asthma is found commonly associated with and aggravated by nasal polypi, hay asthma is viewed with concern on account of its known liability to end in a chronic bronchitis. A symptom of nasal discharge which is frequently obtained upon the examination is fetor, and it is usually an accompaniment of ozena as well as the necrotic state of nasal syphilis. The saddle-back nose and perforation of the cartilaginous septum should call for further inquiry into a possible syphilitic cause.

The mouth, tongue and pharynx should be investigated for syphilitic lesions, mucus patches and superficial ulcers, whether of the early or late type. Chronic hoarseness may point to laryngeal tuberculosis or to syphilis, the first being marked by a soft, weak voice with an accompaniment of aphonia, and the hoarseness of tertiary syphilis,

being indicated by a low hoarseness which is rougher and accompanied by pain or swelling. Impairment of the voice should call for particulars as to its cause, onsets, duration and disposition to recurrence.

Obesity. — Sufferers from too redundant fat have from time immemorial been recognized by medical authorities and other observant people as being peculiarly unfitted to resist onsets of acute diseases, as apt to be short-lived and as being liable to sudden death, they are likely to die of those degenerations of arteries, muscles and internal organs which we know are dangerous, threatening the life of the fat man. Speaking generally, a man under fifty years of age should never have the girth at his navel greater than the empty chest. An English authority says: "If he has a larger girth around his navel when he is under fifty, I look upon it as referring to a one or the other of three 'ins' — indolence, indulgence, or intemperance, or perhaps all three."

Disorders of the Liver. — These are regarded with as little concern by the applicant, as they are regarded with great concern by the medical insurance authorities who are to pass on his application. An admission of occasional "biliousness" or torpid liver may prove, on close investigation, to be something more grave. As a point in clinical diagnosis, it is a good practice to observe *all* the reactions in the use of the contact test with nitric acid. While making the uranalysis, after observing the reaction which indicates or excludes albumin, let the test-tube stand for a few minutes, when the characteristic play of colors may also point to bile or the bile acids, in which event it will be in order to interrogate the hepatic region more nearly than ordinarily.

Jaundice should always call forth special inquiry, and whether the examiner believes it to be of slight import or not, it should be reported for the benefit of the medical director. Its appearance in a drinking man should provoke a diligent search for additional dropsy, enlargement of the superficial abdominal veins, muddy skin, and the distended abdomen with thin legs, which is characteristic of sclerosis of the liver. Syphilis should always be in mind as a cause of hepatic sclerosis, and the usual tests should be made to exclude it, before recommending the risk. Jaundice is the main objective guide to the diseases of the biliary passages.

Diseases of the Bladder. — If this condition happens to be active, the way should be clear to a correct diagnosis through the uranalysis, and if the chemical uranalysis is not deemed to be entirely conclusive, the microscope should clear up any doubt in the case. Applicants will often admit having been troubled with cystitis following gonorrhœa, and will claim that both have been cured. This affords a rare opportunity for the exercise of the diagnostic acumen of the examiner, and the case should be probed to the bottom, as otherwise a subsequent examination and rejection by another company may throw discredit upon a careless examiner. The improved methods of clinical diagnosis now throw so much light on this subject that all obscurity should be cleared up in every case. The examiner should avail himself of all the information which he can obtain from the applicant as to the symptoms, the original diagnosis and the treatment of the case of which he gives the history.

Diseases of the Kidneys. — While a scientific uranalysis should furnish us a fair index as to the soundness of the

kidney, it would be advisable to probe all the subjective relations which an applicant may communicate as to previous disease, supposed to be nephritic in character.

For this purpose he should be asked as to pain, the location and character of which should be described. Learn if it follows the line of the ureters to the groin; if there is any pain produced in the testicle or head of the penis; or if it extends partially around the body. Inquire as to hematuria, and ask if the applicant remembers anything in the physical character of the urine which was thought to be abnormal. The laity recognize "porter-colored" urine as abnormal. Get information as to whether the attack was accompanied by nausea and vomiting, and if headache was present. Ascertain the applicant's recollection as to the quantity of urine, whether he deemed it scanty or excessive. Among the causes of hematuria it is well to recall renal calculus, and if the indications call for a microscopic examination the centrifuge should also be used, and if blood cells are found in the sample of freshly voided urine, which contains crystals, it will be a step toward certainty in the matter of diagnosis. Presumably gouty persons should be held under suspicion in this connection. Among the very serious causes of hematuria, tuberculosis, tumors, and cancer stand out prominently.

Malaria must not be forgotten as a promoting cause of blood in the urine. Syphilis is also given as an occasional cause of this symptom.

Anemia and dropsy should receive due attention as concomitants of nephritis. Frequency of micturition and rising at night to void urine may elicit some corroborative points.

The "kidney expression" is described as a peculiar cachexia showing a puffy, doughy appearance, characteristic of this trouble. The condition of the vessels as to atheroma, and that of the pulse as to hardness and high tension should be noted.

Cardiac hypertrophy and accentuation of the second aortic sound call for notice.

DIZZINESS OR VERTIGO.—This symptom being a concomitant of various diseases, should call for a close investigation as to the cause, in order to be able to make a proper estimate as to its gravity. Among the vertigoes traceable to affections of the special senses, ocular vertigo stands out prominently, being caused by eye strain or astigmatism. Meniere's disease, or aural vertigo, is of frequent occurrence, and is associated with marked tinnitus aurium, and the vertiginous sensations are further described as a see saw motion, a gyratory motion, right or left; a vertical whirl, or a sensation of rising and falling, like the swell of the ocean.

Gastric vertigo being the most common variety of all, should elicit particulars as to stomachic or intestinal dyspepsia, disordered hepatic function and constipation.

Nervous vertigo is found in those addicted to physical or nervous excesses, as well as being due to the immoderate use of tea, coffee, alcohol and tobacco. In solving any case, the possible existence of organic cerebral disease must be kept in mind. As one of the manifestations of the so-called "aura epileptica," it must call forth unusual care. The writer has in mind the case of an applicant whose neighbors were well aware of his epileptic attacks, yet he eluded inquiry by several examiners, and received a large amount of insurance, which has since

been paid. As an indication of uremic intoxication, and a symptom of Bright's disease, it is expected that a scientific uranalysis should guard the interests of the companies.

Vertigo is often found in gouty subjects, after a lapse from the dietetic *regime* which is necessary to keep them from one of their usual paroxysms.

Dropsy. — General dropsy, affecting the subcutaneous tissue, the peritoneal cavity, and the internal serous cavities and organs generally, is usually the result of albuminuria, and most frequently of that form which depends on fatty degeneration of the kidney. The next most frequent cause of dropsy is tricuspid regurgitation, obstructing the venous circulation throughout the body. This regurgitation generally depends on dilatation of the right ventricle, consequent upon obstruction to the flow of blood through the lungs, either from chronic bronchitis and emphysema or mitral obstruction and regurgitation. Dropsy from cardiac disease generally appears first in the feet, if the patient has been for some time in an upright position, while dropsy from albuminuria is often first remarked by a puffiness in the eyelids. In the former it appears where the greatest obstruction to reabsorption takes place, and in the latter case in those parts where looseness of the cellular tissue most readily allows of exudation.

Local dropsies have as a rule local causes, as in hydrocele and pleuritic effusion. If the dropsy is supposed to be of cardiac origin, it is in order to ask as to other symptoms, such as dyspnœa and palpitation, and also locate the position and describe the character of the apex-beat. Ascertain if compensation is perfect, and discover the rate and character of the pulse after vigorous exercise. If there is suspicion of an albuminuric condition, inquire

if he suffers from lassitude, sleeplessness, headaches, vertigo, dyspnœa, gastric disturbances or alteration of vision. Try to obtain or exclude history of œdema of the feet or puffiness of the eyelids. Observe if his appearance shows anemia or pasty complexion. Examine the pulse as to hardness or high tension, and look for signs of atheroma of the vessels. Interrogate the heart as to hypertrophy and accentuation of the second aortic sound. Ask if he has noticed increase or diminution in quantity and frequency of micturition, and also if he arises at night to void urine, and how often.

Diarrhœa (Habitual). — It is not often that an applicant will admit habitual diarrhœa and at the same time seek life insurance, but such rare cases are interesting, and a thorough investigation becomes valuable as a matter of statistics bearing on future examinations of the same applicant, when he may not be so candid. An applicant will often be drawn into an admission of this character, as a side-light to his answer as to being a pensioner, which information some companies call for. He will then try to qualify his answer by attempting to minimize its bearing upon the question at issue, viz., the issuance of a policy. In this connection it is well to recall to mind the various morbid states of which diarrhœa is symptomatic, and the following may be mentioned as indicating its gravity from a life insurance point of view. For instance, in "passive congestion of the portal vein," from disease of the liver, heart or lungs, organic disease of the intestines — ulceration (simple, typhoid, tubercular, cancerous), lardaceous degeneration, enteritis, dysentery, malaria, gout, Bright's disease (later stages), phthisis, cancer.

Dyspepsia. — The function of digestion being of a physico-chemical nature, any interference with the due performance of the several components of the function will lead to indigestion, and may become of a complex nature. Disturbances of the functions will make themselves felt in the one under consideration. Dyspepsia may be traced to (1) the food, (2) disturbance of the so-called mechanical process, (3) imperfection in the chemical changes exercised by the digestive secretion. These considerations present an extensive scope for exposure to health impairment, and should invite close scrutiny to discover the gravity of the case in hand.

In the investigation the state of the tongue, its color, size, and general appearance as to fur, dryness, smoothness, and prominence of papillæ, are often indicative of the condition of the stomach and intestines. Such sympathetic symptoms as headache, pain in the back or in the right shoulder, dizziness, specks in the field of vision, palpitation or irregular action of the heart, cough, disordered urine, etc., indicate the relation existing between the digestive organs and the body generally. The more general symptoms that are found with disordered digestion, may be those of pyrexia, when an acute inflammatory condition of the digestive organs is the cause of the disturbance. The forms of many companies now require the temperature under the tongue to be taken and recorded.

General Debility. — Strange as it may seem, applicants have presented themselves for life insurance while in a state of general debility, and while they are disposed of with ease and grace, the cases which give a history of

previous so-called general debility are the ones which will call forth more protracted inquiry.

Debility is most commonly due to impaired nutrition, whether this be prolonged and moderate, as in defective hygiene or chronic illness, or, on the other hand, rapid and extreme, as in acute disease. Another frequent cause is abuse of the affected organ. Over use of any part leads to fatigue, and if frequently repeated to exhaustion, the chief feature of which is extreme debility, as in cases of sustained exertion, or repeated strain of the heart. "Work and worry" are frequent factors in the production of debility. Debility due to acute disease may, in the absence of complications, be expected to disappear during convalescence. If the cause has been more chronic, and is less easily removed, recovery will certainly be more slow and less satisfactory. The above considerations should be a guide also in cases of reputed "nerve prostration."

Fits. — Unconsciousness or convulsions of any sort.

In probing a history of this kind, the age of the applicant at the time of onset should first be considered. The ordinary spasms or convulsions of infancy do not often leave such a sequel as to present a serious obstacle to life insurance, when the insurable age is reached.

Adolescence, excessive study and mental application, as well as worry and anxiety, must be enumerated among the causes of epilepsy and convulsions. At all ages traumatism will suggest itself as an etiological factor to be investigated most carefully as to past and remaining conditions.

In early adult life, *syphilitic indurations* or growths from the meninges may occur.

In the female, *puerperal convulsions*, and *uremia*.

Convulsions in both sexes are most frequently met with between 20 and 40.

Intemperate habits, carried to excess, often produce fits, and so also may venereal excesses.

Exposure to great heat, or sunstroke, may act as the exciting cause of convulsions.

In the period after middle age, toxemia from renal disease may manifest itself in this connection.

Fistula.— Any fistula in existence at the time of examination is an effective bar to the issuance of a policy upon the bearer of the fistula. As a rule the applicant is postponed until the trouble is radically cured. A history of fistula treated previous to the examination necessitates a careful local examination, the details of which should be reported, giving the exact condition at the time. In the diagnosis of so-called fistula it is well to recognize that all perineal fistulæ in the neighborhood of the anus are not necessarily connected with the anus. They may be due to stricture of the rectum, or to necrosis of the sacrum or coccyx, or to stricture of the urethra, or to disease of the prostate gland. The history of the case, the direction of the sinus, and examination of the surrounding parts, will sufficiently distinguish these from an anal fistula. In chronic cases the perineal opening is usually marked by projecting granulations, but in recent cases this indication does not exist, and the examiner may have to search closely for the orifice, if it be small and concealed by folds of skin round the anus. In cases where the discharge has ceased, give the date of th cessation.

Gout.— The essential features to be borne in mind as to gout relate mainly to the causes and to the anatomicae

characters. The family history presents a guide as to *hereditary transmission*, which is recognized as etiological by medical authorities, and has been so apparent in medico-insurance matters that many companies go so far as to ask if the grandparents, uncles and aunts have had gout. If the answer is affirmative, it is further asked if it is on the father or mother's side of the family. This calls attention to the so-called "law of atavism," which appears so prominently in life insurance experience. As a cause of gout the most prominent we find are errors relating to food, drink and exercise. In general terms these errors may be summed up as excessive eating, especially of particular articles of food; undue indulgence in alcoholic drinks, and indolent habits, with deficient exercise. Bodily conformation and temperament have been credited with a predisposing influence, persons of sanguine temperament, and of corpulent full-blooded, plethoric habit of body, being supposed to be most subject to the disease and to have it in its most acute form. Social position and occupation materially influence the occurence of gout. It is a well-known fact that it tends specially to attack the smaller joints, and above all the metatarso-phalangeal joint of the great toe, which is the one usually first affected. In its most typical manifestations gout is characterized anatomically by the occurrence of a peculiar form of inflammation affecting certain joints, this being invariably attended with the deposit of urates in connection with their structures. In a progressive case, the joint then becomes permanently enlarged and distorted, while the ligaments are thickened and more or less stiff or quite rigid, and ultimately complete anchylosis may be produced. The condition of the kidneys induced by the gouty diathesis

is of great importance, and these organs probably begin to be diseased at a very early period in the history of a case of gout, for they may be found to be affected when there have been little or no external manifestations of the complaint, commencing with a deposit of urate of soda within the renal tubuli, a chronic inflammatory process is set up, ending ultimately in the production of the granular contracted kidney. Other morbid states observed are the presence of calculi, consisting of uric acid, urates or oxalates, chronic cystitis or urethritis.

Gout is regarded by some companies as a grave blot upon an applicant's family history.

GOUT AND NEURASTHENIA.

Dr. F. D. Grant, of the Provident Life, speaking of gout and neurasthenia in their relation to insurance, says Dr. Geo. M. Beard has set forth the whole history of neurasthenia in his classic work on that subject. I have always held his book in the highest estimation, and have considered that he about exhausted the subject upon which he spent so much of his time. But we are dealing with the gouty diathesis. Now, this to me is a distinct entity, and its symptoms, and the condition of the applicant for insurance, present a very different picture from the man with a gouty diathesis applying to us for insurance. The neurasthenic may be — indeed, often is — a neurotic, but he is not a sclerotic. The neurasthenic suffers much with his protein symptoms, but as a class he lives long. The gouty subject, or one with a strong tendency that way, has not the symptomatology of the neurasthenic; neither, in my experience, are his chances for expectancy as good.

When I am brought face to face with an applicant giving the following history, and presenting the following symptoms, it is my practice either to decline outright, or to limit to an endowment policy for insurance, according to the merits of the case: —

A man past 40, giving a gouty history in his family, or showing a gouty tendency in himself, who shows indications of arterial tension in his arteries (the arteriosclerosis of our medical nomenclature), who has the tortuous temporal artery and the accentuated second heart-sound, who may have also the beginning or complete arcus senilis (upon which Dr. Wood has spoken at length), and whose urine either shows a trace of albumin, or under the microscope casts, or, if not these pathological conditions, reveals a high specific gravity and excess of urates, is, to my mind, a gouty subject, and not a neurasthenic, whatever other symptoms he may give. I confess that I have personally a great respect for the presence of albumin in the urine under any conditions. It will, indeed, be a great boon conferred upon us all when the time arrives that some one in our profession shall positively demonstrate the true significance of albumin in the urine, and its relation to the various diseases to which the human flesh is heir. At the present time we can only take our findings, and govern ourselves according to our individual opinions and judgments on the signification of this abnormal element in the human urine. I agree entirely with Dr. Lambert's statement, namely, that the nice distinction between the gouty diathesis and the chronic rheumatic conditions which come before us is a very fine one, and that it is often hard to draw the line of demarcation between them.

There is another point I think it is well that we should remember; that is the two forms of gouty diathesis which appear before us in our work, namely, that in the rich, or well-fed, well-cared for man, due to excessive metamorphosis of tissue, and that in the poor or working classes, due to defective assimilation. The pictures which these two types present to us are very different, but the results are the same. It is the practice of our company to limit these subjects (when we do not decline) to some form of endowment insurance, either on a short or long endowment, according to the merits of the case. — *Medical Examiner.*

Gravel. — The same causes which produce dyspepsia are frequently productive of uric acid gravel, such as indolent habits, excess of food and drink. Gravel may be composed of uric acid and its compounds, oxalate of lime, phosphate of lime or the triple phosphates of lime, magnesia and ammonia. By far the most common form of gravel is the uric acid. This, owing to its great insolubility, is freqently deposited in the kidneys and bladder, and is seen in newly-passed urine in the form of the well-known reddish-brown crystals, often described as resembling cayenne pepper grains. The appearance of these crystals in any specimen should call forth hesitation in recommending a risk, and demand a thorough investigation, the details of which should be communicated to the Medical Director.

Headache. — A detailed description of the symptoms is called for. Relate the applicant's impression as to its cause and give the date when he observed it to be a matter of annoyance or discomfort. Describe the seat of pain, and its limitations as to area. Then the character

of the pain, for instance, as to whether it is dull, sharp, cutting, etc. Duration of the attack and treatment is of interest. State whether it is associated with perverted sensations, such as giddiness, tingling in the limbs, disordered hearing or disturbances of vision. Remember the relation between headache and rheumatism, syphilis, neuralgia, and uremia.

Insanity. — The family history may contain an index pointing to inherited predisposition to neurotic disorder. This is difficult to estimate or discover, owing to the care with which it is concealed, but its importance cannot be questioned, and should call forth the greatest concern, and hence the most searching inquiry into any clew which may present itself.

Lumps or Swellings. — For purposes of classification swellings are described as local or circumscribed, and as general or diffused. Among the circumscribed kind, hypertrophy of the thyroid gland, as in goitre, may be mentioned. Ordinary abscess may present itself and call for description. Edema, and other exudations into the connective tissue, merit mention. Disturbed relations of parts are often found, as in dislocation of the joints, and hernia. Inflammatory enlargements and new growths constitute by far the most common cause of local swelling, and they thus become of prime importance from a life insurance standpoint. Among the diffused swellings due attention should be paid to anasarca, myxodermia, etc.

Malaria. — In the minds of many Medical Directors, malaria is classed with the proverbial "charity which covers a multitude of sins."

Consumption, or the tendency to it, is usually suspected, and special effort is always required of the examiner to

exclude phthisis and other wasting diseases. It is particularly urged to learn as to whether the applicant had any cough following the so-called malaria, and also whether the attack has had a recurrence. In a case in point the author has just received the following specific instructions from a well-known Medical Director of extended experience: "The postponement was due not to the fact that the applicant had malaria, but to information received from you that he was troubled with a cough for about three weeks after the attack of malaria. As undoubtedly you are aware, it is necessary to be very careful in regard to cases of so-called malaria, particularly when there is any cough associated with them. In Canada where there is no true malaria, an attack of the disease, so-called, is looked upon by physicians as being suspicious, being in so many cases the commencement of pulmonary disease, the initiatory symptoms of which simulate, by their intermittency, true malaria. Dr. Osler says that in all our cities the initiatory symptoms of consumption are very often mistaken for malaria. Make a re-examination of the lungs, and ascertain definitely in regard to any cough which he may have had since the malaria, and also take his temperature."

Open Sores. — The etiology of ulcers furnishes a basis, which indicates the important bearing which they may have on life insurance. They may be caused by a cut or laceration, by pressure, by destruction produced by an escharotic, a burn or a bruise; or they may be the result of changes commencing within the tissues themselves. These changes might be acute inflammation, giving rise to pus; chronic inflammation, giving rise to thickening of the fibrous tissues, with strangulation of the blood-

vessels passing through it to the surface; or defective nutrition of the skin and subcutaneous tissues. In giving the details as to an open sore, describe the surface, the edges, the surroundings and the discharge. In this connection, it is well to bear in mind the classification of ulcers as given by Syme, who refers to the following varieties, viz.: 1. The healing or healthy. 2. Those that do not heal, from defect of action. 3. Those that do not heal from excess of action. 4. Those that do not heal from peculiarity of action. Under the last heading, it is well to mention phagedenic and sloughing ulcers, such as bubo and venereal sores. Among the cases often encountered is a history of bone injury, in which a sinus is still operative. Varicose ulcers require notice and are a bar to life insurance.

Pain in the Back. — The many conditions which give rise to pain in this situation require to be borne in mind in making examinations. Among these may be mentioned congestion of the kidneys, the diagnosis of which is emphasized by scanty, high-colored urine, containing albumen and blood corpuscles.

In renal calculus the pain radiates forward from the renal site. The presence of a stricture of small calibre will often cause the patient to complain of pain in the back.

Lumbago may depend upon rheumatism of the muscles, or it may be neuralgic in character. Pain in the back may be caused by flatulent distension of the bowels, or it may depend upon a tumor connected with the bowels. An undiscovered hernia may have attention called to it by pain in the back.

Movable kidney has its pain referred to the side on

which the kidney is displaced, and is characterized by increased pain on assuming the erect posture.

Paralysis. — This is a bar to life insurance while it is present, and, as a rule, after it has been recovered from, and its history becomes a matter of life insurance interest on account of its bearing on future examinations. An applicant will, at one time, give a history of paralysis from which he appeared to have recovered, and in a subsequent examination he will purposely omit this history, only to be confronted with it when the "Clearing House" record discloses it to the Medical Director sought to be imposed upon. In an effort to locate the cause of paralysis, it is well to go over some of the usual conditions which are said to favor it: Exposure to cold or damp, some shock or concussion, venereal excesses (onanism), great fatigue, induced by other causes; syphilis, the specific fevers, such as cholera, typhoid, variola, etc.

Palpitation. — Being a symptom which is often admitted by an applicant, may or may not have a material bearing on the issue of the case. Hence, in addition to other essentials in every inquiry, the causes must be ventilated.

The chief predisposing causes are to be found in the nervous and excitable temperaments; exhaustion from any cause, whether bodily or mental, venereal excesses, and in deterioration of the blood, as occurs in gout, chlorosis, etc. Among the exciting causes may be classed violent exercise, mental shock, emotion and all forms of sudden excitement of the nervous system, dissipation and dyspepsia.

Valvular disease, hypertrophy and cardiac dilatation, as well as myocardial affections, must be suspected in every

case as important and serious causes. Tea, coffee and alcohol are frequent causes, as likewise excessive smoking.

Piles. — In describing hemorrhoids, it is advisable to state whether they are of the external or the internal kind, also whether they have ever been strangulated, and if they have been accompanied by hemorrhage, mention the extent of the bleeding. The gravity of piles is based on the fact that external piles, when large and troublesome, and internal piles when of such a size as to protrude at stool, are apt to be subject to inflammation, ulceration, and frequent bleeding, and can be removed only by operation. In addition to costiveness as a cause of piles, it is well to note stricture of the rectum or urethra, and enlargement of the prostate gland, and the history of piles will necessitate a local examination and description of the condition of the parts directly or indirectly involved, before the record will be complete.

Rheumatism. — In commencing the catechism as to this disease, it should be recalled that inheritance figures in these cases, as it is claimed that it can be traced in about 27 per cent of all cases. Previous attacks increase the liability to a return of the disease, but a limit is claimed to predisposition from this cause after several attacks. Among the determining causes are weather, season and climate, through the influence of exposure to cold and wet. Indulgence in rich or indigestible food may induce an attack in those who are predisposed, or laboring under depressing bodily or mental influences. Among the constant phenomena of rheumatism we find fever, sweats and arthritis, whilst inflammations of the cardiac structures, lungs and serous membranes would be included under the head of occasional phenomena, or complications.

The remote consequences of acute rheumatism are more serious than the immediate effects. A common effect is valvular disease of the heart, which is usually referable to endocarditis occurring as a complication of rheumatism. It is impossible to estimate the number of cases of disease of the lungs, vessels, brain, kidneys and other organs, which follow in the wake of such heart diseases. When, in addition to these effects, we consider the remote effects of pneumonia and pleurisy, and the liability of a return of rheumatism after a first attack, it can be conceived with what deep concern the condition is viewed by medico-insurance officials. Cardiac complications are said to figure in no fewer than 50 per cent of all cases. Among the special types of rheumatism, gonorrhœal rheumatism must call for special mention, and equally special investigation by the examiner.

An attack of acute articular rheumatism disqualifies for one year after beginning of convalescence. Recurring attacks may disqualify permanently. Chronic rheumatism disqualifies variously according to case.

Rupture. — All hernial protrusions are classed as reducible or irreducible, and the admission or discovery of a hernia involves a close description of the anatomical conditions, so that a proper estimate can be made as to its bearing on the life insurance question. The treatment of all reducible hernias being based on the employment of means to prevent its protrusion, these means merit a critical inspection by the examiner, and a corresponding report to the Medical Director. Upon the issuance of a policy to the subject of a rupture, many companies attach a "hernia clause," obligating the applicant to employ a well fitting truss during the life of the policy. In addi-

tion to the ordinary question as to the rupture, some companies append an additional question, "If there is a rupture, of what kind is it? is it reducible? and is a truss worn?"

Scrofula.— Although a term relating to a nomenclature which is almost obsolete, this calls attention to certain morbid affections of the absorbent glands. Modern research has demonstrated that a scrofulous gland is really a tuberculous gland. Vulnerability is the type which is presented by these cases, and association of bad family history and scrofula would disqualify for insurance, as likely to impair the normal resistance to disease. Commonly the inflammatory products of the strumous diathesis remain where they were produced, inert and passive, so that they can be readily made out by the examiner. Whatever lessens health and strength tends to beget scrofula; and tends to beget it, not so much in the enfeebled individual himself, as in his offspring, all of which is only another demonstration of the value of family history in insurance rating.

Skin Disease.— These are often only local manifestations of lack of healthy function and normal vital power, and a proper examination from particular to general may disclose matter of much moment to the question at issue. Among the common inflammations, eczema in its multiple forms may be the reflection of diabetes or other grave conditions. In the absence of an honest or candid statement as to syphilis, the syphilides may obtrude themselves and speak volumes to the inquiring examiner. The tendency of certain diseases to present local evidence on the hands and face is often a distinct aid in clearing up an otherwise obscure case. Puffiness of the lids and pasty

complexion are often the only outward signs indicating Bright's disease. Discoloration of the skin excites interest, as one of the symptoms of Addison's disease. Whatever the skin manifestations may be, it should not be lightly dismissed, but should call for an absolute diagnosis as to its cause, etc.

Spitting of Blood.— Hemoptysis, having its source in pulmonary or bronchial hemorrhage, is a condition so grave that no after-coloring of the picture by the applicant ever admits him to the good graces of the Medical Director. It is one of the most frequent signs of early phthisis, as well as being an accompaniment of the later forms of the disease. No modification in the views respecting the nature of phthisis can lessen the significance of hemoptysis as being one of its most important signs. While it is a warning that may sometimes save, and very often prolong life, yet, as a rule, it operates as a preventive against the issuance of a policy. Hence, its history should be thoroughly elaborated, and all of its essential features submitted, and when the examination is made the chest should be so examined as to preclude any doubt as to the present condition at least. In giving the history mention the quantity of blood, as well as its character and the number of times it occurred, and the date of its last appearance. After all is said and done, however, the statistics of the company are embellished by an interesting history, but generally no cash follows into its treasury from the blood-spitting applicant.

Stricture of the Urethra.— However frequent stricture may be found in practice, it is rarely admitted by an applicant, and, if admitted at all, he mentions that the stricture was slight, and that it is cured, and gives him

no trouble now. A visual inspection of the act of urination may disclose to the examiner the amount of reliance which is to be placed in the applicant's statement. It is the practice of some Medical Directors to order an examination of the urethra by the introduction of an appropriate sound, and if its calibre is found to be normal the case presents a favorable appearance. The writer was asked by a possible applicant what was the custom of the companies as to stricture, of which he claimed to have been cured. Upon disclosing to him the usual test of sounding the urethra, I failed to have the satisfaction of examining him, but subsequently learned that he had been examined by another examiner to whom he did not disclose any history of stricture.

Swelling of the Feet.— This excites attention as being one of the first manifestations of cardiac disease, and becomes apparent if the subject of it has been for some time in an upright position. If present at the time of examination it would cast a cloud on the record, with or without other concomitant symptoms. If it is merely a history of the past, it should not be dismissed lightly, but due search should be instituted for indications of cardiac abnormality, or Bright's disease.

Syphilis.— The question of syphilis has come to be a bugbear in the life insurance field. An applicant will sometimes say that he had a "chancre," but a scientific inquiry may disclose the condition to have been "chancroid," as the laity still confuse the terms, or an enlightened quack may have impressed a diagnosis of "chancre" upon a case of herpes progenitalis, thereby increasing his emoluments and magnifying the gravity of the condition, as well as his skill in curing it.

Whether syphilis can or cannot with safety be insured is a question which is still "sub-judice." No invariable rule as to acceptance can be laid down, but each case is considered on its merits. No applicant with a syphilitic history is favorably considered until a sufficient time has elapsed after he has been cured. What constitutes a "sufficient time" discloses the widely different opinions which are held on this subject by the various Medical Directors. There is no consensus of opinion on the matter. However, no applicant will be accepted who is the subject of tertiary or inherited syphilis. When an applicant who has had syphilis is presented, a full symtomatic and chronological history of the disease is required, together with the treatment employed and the name and residence of the attending physician. In the event that a syphilitic applicant is married, state how long he has been married, and whether he has had any children. If so, are the children perfectly healthy? Has his wife miscarried? Is she now perfectly well, and has she been so since marriage?

An eminent German authority who has studied the influence of syphilis upon insurance mortality is of the opinion that at least 25 per cent. of deaths from heart disease, hemorrhage into the brain, and cerebral softening in persons under 50, without distinct specific history, should be placed at the door of syphilis.

Jonathan Hutchison, a very great authority on syphilis, said he should only like to belong to a syphilitic life assurance society at ordinary rates, and contends that if a man has undergone a certain amount of treatment three or four years, and shows no sign, and shows himself to be in a good state of health, he is pretty safe.

VARICOSE VEINS. — A dilated vein becomes dangerous in proportion to its tendency to rupture or to inflammation. In describing a case of varicose veins, mention whether the varicosity extends above the knees and also whether a proper support is worn. Note if there is any tendency to breaking down or ulceration. A varicose ulcer would work as a bar to life insurance. If there is a varicocele, state whether this is slight or well marked, and also whether applicant wears a proper suspensory bandage for same. Pulsating varices call for special mention.

Have you had any illness or disease other than as stated by above (state full particulars)? If the answer is affirmative say, "none except," giving the necessary details, etc.

A simple description without the qualification in quotation marks would not be a complete answer to the question.

APPENDICITIS.

RULE IN REFERENCE TO APPENDICITIS. — Six varieties are recognized: —

1st. Non suppurative with no operation — appendix not removed — disqualifies until *after two years.*

2d. Non-suppurative, appendix removed, disqualifies until after one year.

3d. Suppurative — if clearly shown that the appendix has sloughed away with perfect recovery — disqualifies until one and a half years at least *from date of recovery.*

4th. Abscess drained and appendix not removed — disqualifies until two years after perfect recovery.

5th. Chronic, relapsing or recurring, disqualifies unti

five years have passed with no recurrence of symptoms within that time.

6th. With a history of general peritonitis — excision of appendix — one year after perfect recovery, provided the appendix has been perfectly removed. If it has not been, three years after recovery.

MEDICAL EXAMINER'S REPORT.

Were you and the applicant alone for this examination?

The presence of a third person is absolutely forbidden in the making of examinations. The reason for this is obvious, as it insures a greater degree of candor from the applicant, when he is assured that his disclosures as to family and personal history are guarded by the seal of confidence. It also prevents coaching or suggestion from an interested third person, which character the agent often likes to assume, if permitted by an indulgent examiner.

Do you personally know the applicant?

This often works to the advantage of the applicant, when answered affirmatively, as an admission of a personal acquaintance without some adverse comment, tacitly implies an indorsement of his reliability of statement as to habits, etc.

On the other hand, if the examiner should have personal knowledge of the facts bearing on the case, he would be in duty bound to communicate them.

Does the applicant's appearance indicate health and vigor?

This question is devised to arouse the examiner's powers of observation, so as to form an impression as to whether the applicant, on his outward appearance, would seem to present a normal resistance to disease. Collaterally, it in-

vites an opinion based on the impression which is left on the examiner — after hearing the applicant's story of previous illness, etc., in his "declarations to the examiner."

MARKS OF IDENTIFICATION. — *If none are apparent, ask:*

How could your body be identified if much disfigured, or if no friends were near?

This will lead to what the applicant considers to be a characteristic.

Describe marks of identification in detail.

A well-known examiner once sent in an answer as follows: "parts his hair in the middle."

PHYSICAL MARKS. — Such as crooked fingers, moles, scars, tattoo devices, etc., are reliable means of identification and should be recorded.

COMPLEXION. — This term is generally used to denote the color of the face, whether pale, dark, ruddy, sallow. The color of the hair and eyes should also be mentioned in this connection.

COLOR OF THE HAIR. — If the hair is white, does it correspond with the applicant's age? or is it a family characteristic, or has it been brought about suddenly by great mental shock?

Is it evident that it has been changed by the use of chemicals?

It has been observed that the man who dyes his hair, fools nobody but himself.

RACE. — State whether white or black or other distinctive race. The writer knows of an examiner who on one occasion returned an examination with the answer "Jewish race," thereby arousing the ire of the Hebrew agent, who protested that this was a designation of a religion and not of a race.

Complexion and Build.— A flat chest, a pigeon-breast, a protuberant abdomen, should be noted and a comprehensive description given.

In answer to "*Figure*" state whether robust or spare, erect or stooping.

Height and Weight.— In a report by a well-known Medical Director, he sums up as follows: —

"That persons who are under the standard or average of weight are much more liable to consumption than those above this standard. That persons who exhibit a robust and well-developed body have little susceptibility to consumption. That the personal condition of weight and robustness has far more value than the family history in diminishing the liability to consumption; and that therefore, the evidence presented by a well-developed body may outweigh the suspicion attached to unfavorable record."

Underweight should be carefully scrutinized, as indicating a tendency to consumption, or other wasting process.

Overweight.— Frequently exhibits a tendency to diseases of the heart, arteries, liver and kidneys, as well as fatty degeneration.

Stillman says that excessive obesity at any age vitiates the risk, and this is especially true if it has appeared with comparative suddenness, and cannot be recognized as an inherited tendency in an otherwise healthy family.

As a concise statement of the influence of height and weight, I make use of the concluding passage in Dr. Geo. R. Shepherd's paper read before the Association of Life Insurance Medical Directors of America at its meeting in

1899. I have excerpted same from *The Medical Examiner* of July, 1899: —

"It may be interesting to consider for a moment some of the causes of the variations in build.

"There is the influence of heredity which is frequently well marked, all the members of a family, sometimes for several generations, showing this as a characteristic both in light and heavy weight. Not infrequently this is coupled with longevity, the individuals being of the thin, wiry, tough race, who endure well the hardships and labor of life, or, less frequently, of the opposite build, heavy frame, well-developed muscle, large chest capacity, and great endurance. But on the other hand, there is a class in which the ancestry has been short lived, tuberculosis and nervous diseases being found among those of the one class and heart disease, apoplexy and renal troubles with the other. These must be looked upon with great suspicion."

Underweight is often the result of digestive disorders causing malnutrition. Spirit drinking, poor and insufficient food, and overwork, are frequently causes of light weight.

Over-indulgence in food and drink, particularly if the food be starchy or saccharine, and the drink malt liquor, is a frequent cause of obesity.

Butchers who spend much of their time in the slaughter house are usually of heavy build. Some men take on fat quite suddenly owing to change in habits of life. Such risks are always hazardous. The muscles are weak and hernia is of frequent occurrence.

There appears to be some reason to believe that there is a class of light weights who are of a wiry, tough make-up, mostly bone and sinew, who have good resisting power

and are long lived, like their ancestors, and also that we do occasionally see a man of heavy build who is chiefly bone and muscle, with a large frame and unusual development. These men form a class by themselves, and are not always poor risks.

For many years it has been a settled opinion among many insurance authorities that light weight means liability to consumption, and probably every company has declined to take such cases as a rule, accepting only such as could show an ancestry free from taint, particularly of tubercular disease, and a personal record that was equally clear. On the other hand, many companies have regarded heavy weight as a redeeming feature in a tubercular family, and when not so associated they have considered it chiefly due to muscle and bone, as the agent, and not infrequently the medical examiner, are so prone to assert. For this reason many heavy men have been insured as good risks, when their thin brothers were turned down as poor ones. Hence the number of heavy weights exceeds very greatly those of light weight in our statistics, but it appears quite clear from what is here presented that this has been a mistake. The over and the underweights alike are abnormal risks, and should be considered as giving evidence of susceptibility to disease with lessened vital resistance, particularly so if the family history is other than first class. The value of family history is beautifully illustrated in the table furnished by the Northwestern. When the family record was "extraordinary," neither parent having died under 70, the overweight was comparatively of small moment, but in the second class, where at least one parent had died under 70, the result was marked.

"Light weights may be said to be poor risks for the following reasons: —

1st. They are abnormal and die short of their expectation.

2d. They are prone to develop tuberculosis and nervous diseases.

3d. They are frequently under-fed and over-worked, suffering from mal-assimilation.

4th. They are usually of a very nervous temperament, and so wear out quicker than men of ordinary build.

The overweights are poor risks because: —

1st. They are abnormal.

2d. They are prone to develop heart disease, apoplexy and premature arterio-sclerosis.

3d. They are peculiarly liable to diabetes, rheumatism and lithemia.

4th. They take insufficient exercise and eat heartily as a rule, and frequently are intemperate in the use of stimulants, particularly of malt liquors.

5th. They succumb easily to accidents and surgical operations.

In conclusion, therefore, we would say, first, that a variation of more than 20 per cent from our table, in either direction, should decline a life risk, except in a few rare instances where the build is a family characteristic coupled with longevity; or, second, in overweights, since the diseases to which they appear to be chiefly predisposed are due to changes that appear after middle life, as a rule, even when the family history is not extra good, many may safely be given a policy to terminate at about fifty years of age."

Whenever it is practicable, the examiner should weigh

and measure the applicant, and this becomes imperative upon him when the height and weight stated by the applicant would seem to be improbable. It should certainly be done in all cases where the weight varies more than ten per cent from the schedules based upon the height. If it is not done, it will provoke correspondence with the home office, and at least delay the case; whereas, if it is done, it will show that the examiner is mindful of the essentials of his duty in the matter. As a rule of thumb, it may be estimated that a man of five feet will weigh between 110 and 115 pounds, and five pounds may be added for each inch of height. It is only in rare cases that any company will issue a policy upon an applicant who is 20 per cent or more *under* the scale of weight based upon his height. For instance, if it is a distinct family characteristic on both sides of the family. Some companies hesitate to issue upon a man who is more than 20 per cent over the schedule, but, many companies will take cases as high as 40 per cent in excess.

b. Circumference of chest on full expiration ..... inches

c. Circumference of chest on forced inspiration ..... } under vest

d. Girth of abdomen ..... inches ..... inches

The measurement of the chest should be taken above the nipples, and if the applicant cannot make a satisfactory respiration, or catches his breath through nervousness in his effort, he should be taught how to properly expand his chest by an object lesson based upon watching the examiner do it. Some applicants become excited during the maneuver, so that when the pulse is taken a few moments later it is often found to be accelerated. In

consequence, some authorities have claimed that the pulse should be taken first, in order to have the applicant more quiet, whereas, other good authorities argue that if the applicant is subject to an irregular or intermittent pulse, it will become more manifest when the rate is fast. They argue further that if it is fast from excitement only this may be allayed by a few minutes' rest, and that a valuable test has been made by the very slight "waking up" which the applicant gets.

Did you weigh and measure him?

If not, are you satisfied that these figures are correct?

It has been the writer's experience to measure an applicant, and weigh him on the scale found at his place of business, and subsequently a letter from the home office conveyed the information that the applicant had shown an increased weight of 15 lbs. to another examiner within, say, two weeks previously. In response to a request to have the applicant weighed again, he was weighed at the writer's office on a scale properly balanced, and the increased weight was found to be correct. Evidently the applicant had learned of his rejection by the other company, and had "fixed" his scales, but, as the "clearing house" record disclosed the fraud, it is needless to say that he is now "fixed" so that he will hardly obtain additional insurance in the future, even though his weighty disability may be removed. If the applicant is not weighed, he should, at least, be measured, and it should be so stated. In order to answer the question properly, the examiner should make a critical estimate based upon a careful study of the applicant's physique, and he should keep a note thereof, so as to be prepared for such additional queries as he may receive from the Medical Director.

Has the applicant's weight recently increased or diminished?

If so, how much and within what period?

The cause of the gain or loss must be given to fulfill the requirements of this question. If it seems to be as a result of some morbid process, it will naturally imperil the risk according to the gravity of the cause producing it. Material differences between winter and summer weights are criticised closely.

The writer recently had an applicant tell him that he had gained 80 lbs. within a year. As a cause, he said his light weight was due to hard work in a cooper shop, while his heavy weight was a family characteristic on both sides of the family, which the writer was able to verify from personal knowledge. The applicant had gained the 80 lbs. in any easy berth.

If under or over weight, is it a family or individual characteristic? State on which side of family, disproportion exists. This question figures largely in the "strenuous life" of the Medical Directors, if one is to judge by the earnestness and pointedness which mark their epistolary efforts to satisfy themselves on this point. If the examiner has personal knowledge as to the applicant's family, it is well to embellish the record by furnishing all possible information, as he will thereby often save some time and trouble, not only to the home office officials, but also to the agent, and finally to himself by sending a complete pen-picture of the case.

If over weight, is it due to fat or to large bones and muscles? In cases where the *weight* is excessive, inquire of what it consists; if of large bones and muscles, with corresponding strength, it is evidence of large vitality;

but, if it consists of great deposits of fat, with a large abdomen, the conclusion must be unfavorable to the life. In cases where the increase of weight has been gradual the risk is to be regarded more favorably than in those in which the same condition has been rapidly obtained.

Intemperance, either in eating or drinking, or both, and the absence of regular habits of exercise, are the usual causes of such rapid increase in size.

In cases of extreme underweight or overweight, ascertain whether the condition is a family characteristic, and if it is, have applicant write and sign a statement, giving approximate weights of father, mother, brothers and sisters.

Has the applicant ever had severe headaches, vertigo, fits or any nervous or muscular trouble?

While it is not intended that the examiner shall attempt to throw the applicant into a "fit" to conform to this question, it is yet imperative that any past trouble should be fully elaborated by description, and any remaining effect must be mentioned.

As to headaches, state whether it is confined to the forehead, the temples, the occiput or the vertex. The headaches which give most concern, in medico-insurance matters, are the so-called toxemic or uremic kind, which are usually accompanied by vertigo. If a history of such has been given, it is well to test the equilibrium of the applicant by causing him to do some stooping exercise and assuming the erect posture quickly. The views of the examiner as to nervous symptoms or muscular trouble may be submitted under the above heading, after the applicant's whole case has been carefully considered.

Has the applicant ever had syphilis, stricture or any disease of the generative organs? The essential facts relating to stricture and syphilis are laid down under their respective headings. As to the diseases of the generative organs the utmost care and exactness must be employed, so that the previous and present condition may be set before the Medical Director, as otherwise no intelligent estimate can be made as to the insurability of the life.

Is there any eruption on any part of the body?

While it is not contemplated that the examiner should present all the special knowledge of the trained dermatologist, it is yet expected that such skin lesions as are apparent should receive a comprehensive description. The reason for this becomes obvious in view of the possible bearing which they may have on the applicant's history of previous illness.

Is there any discharge from the ear?

The indications for the proper method of answering this question are mentioned under the appropriate heading.

Has the applicant any cough or hoarseness at the present time?

Many agents have a habit of rushing an applicant into an examination, *nolens volens*, although they know that the applicant has a cough at the time. These cases require tactful handling, and should not be recommended until the applicant is entirely free from ailment.

Is the respiratory murmur clear and distinct over every part of both lungs?

Is the respiration full, easy and regular?

Is there any indication of disease of the organs of respiration?

Number of respirations per minute?

In examining the chest, it is absolutely necessary that the examiner should be afforded a favorable opportunity to recognize anything abnormal, if present. Hence no examination should be made over the outer shirt. This should be removed, or at least raised up, so that the examining ear or stethoscope or phonendoscope may be conveniently placed for a proper recognition of the sounds which are heard, free from extraneous conditions, such as shirt-sounds or a noisy room, or like disturbances. In this way only can the shape of the chest be exactly noted. A normal chest should be symmetrical, full and well formed. If there is a deviation from these normal characters, state the degree, etc. Describe deformities of the chest, whether bilateral or unilateral. Among the abnormalities sometimes found are the so-called "chicken breast" or "pigeon breast," rickety chest, alar or pterygoid chest, phthisical chest; enlargement and contractions, phthisical apices, and pleuritic effusions. The expansion of the chest should be at least one-tenth of the normal chest measurement. Teach the applicant how to expand, before deciding on the lack of proper expansion. Regarding the number of respirations, any deviation from the normal or usual relation between the pulse and respiration will demand explanation sufficient to remove all elements of possible hazard. The spaces below the clavicles and their condition present reliable guides to the examiner. Be sure to observe whether they are depressed, and if dull and flat sounds are manifest on percussion. The breathing at these points is important. If abnormal these same concomitant symptoms will very likely also become apparent by the usual methods of physical diagnosis.

Is the action of the heart free, uniform and steady?

Are its sounds and rhythm regular and normal?

Is there any indication of disease of the heart and blood vessels?

The examiner will be held to a strict accountability as to the cardiac conditions. If abnormality becomes apparent, describe it accurately, and while no one with cardiac trouble will be accepted as a select risk, yet the information as to the character of the disqualification is desirable for purposes of statistics, and as a guide, should the applicant be submitted subsequently as a sub-standard risk.

What is the character of the pulse?

Is it intermittent, irregular or unsteady?

What is the pulse rate?

In counting the pulse, it is always desirable to observe its rate throughout an entire minute, inasmuch as important irregularities in its action might otherwise escape observation. Should any deviation from the normal condition of the heart and lungs be discovered by auscultation or percussion, which may be due to slight and temporary derangements, such for instance as the sounds produced by a "cold," sufficient interval should always be allowed between their detection and the re-examination to establish their true character, and the report should never be completed until these can be explained beyond a doubt.

The character of the pulse may be described as *normal*, or, as *full, strong and regular*, and any deviations from these characteristics must be duly noted. If a heart lesion is diagnosticated, the record might be embellished by learning if there has been dyspnoea, palpitation, dropsy, or other symptoms.

Is there any disease or disorder of the stomach or abdominal organs?

To answer this question, full attention should be given to the history as given in the declarations to the examiner, and the organs said to have been affected should be critically investigated. Having specially in mind the prevalence of hepatic troubles, several companies ask the question, "*Is the hepatic area sensitive on percussion or enlarged or diminished in size?*"

If a relation of appendicitis has been given, it will be advisable to sum up the case by placing it in the appropriate category, as given under the heading "appendicitis." If this is not done by the examiner, in the first instance, it will require correspondence and another interview, at least, before the Medical Director will be satisfied to pass on the case. All cases of dyspepsia or indigestion should here receive a mental review from the examiner, so as to determine their bearing, if serious, upon the question at issue. All histories of colic, if severe, protracted or repeated, and especially if due to renal or hepatic derangement, will call for the examiner's opinion before the case will receive the finishing touch of the Medical Director.

Is there any indication of disease of the urinary organs?

An admission of an attack of gravel, or other bladder trouble, or a gonorrhœa with its sequence of stricture, makes it incumbent upon the examiner to give his impressions of the existing condition at the time of examination.

Immediate centrifugation and microscopic uranalysis, in a cool room, should disclose valuable information as to the vesical state. The calibre of the urethra as dis-

closed by the sound, is held to indicate the gravity of stricture. The uranalysis, chemical at least, and microscopic if necessary, will complete the requirement of this question.

URANALYSIS.

After satisfying himself beyond a doubt that the specimen examined by him is that of the applicant, the examiner faces one of the most important features of his work, viz., the uranalysis.

For life insurance purposes, the scope of uranalysis embraces the following points of observation:—

Color, whether clear or turbid;

Reaction, specific gravity, albumin, sugar;

Nature and amount of sediment.

A microscopic examination is to be made when the examiner deems it advisable, or the home office calls for it, either specifically or in accordance with the rules of the company.

Among the physical characters of the urine the color engages the attention of the examiner at once. The color of normal urine is said to be amber, and the variations from this standard are dependent upon the amount of coloring matter which it contains. When the urine is dense the color deepens, and on the other hand it may be almost colorless following the free drinking of water or other fluids. When there is any material variation from the normal color it is advisable to inquire as to the amount and character of food and drink ingested, say within the preceding three hours. A pale yellow urine, with its frothy surface, is found in the free flow of diabetes. Among the striking colors, an orange-red is observed from the

elimination of santonin in an alkaline medium. A reddish urine is usual after a full meal without much liquids, and also after severe physical exercise and with abundant perspiration. A brownish urine excites attention from a possible hemoglobinuria, or as a sequence to the administration of tar, carbolic acid, gallic acid, tannic acid, senna, or sulphonal. A sulphur-yellow or olive-green color will be found associated with jaundice.

Specific Gravity. — The urinometer is used for determining this point, and the insurance standard allows a variation between 1012 and 1030. If below 1012 or above 1030 other specimens must be examined. The free use of beverages may be the cause of the low specific gravity, and as few applicants are likely to drink too much water, it is in order to inquire the nature of the drinks which may have caused the condition. The usual pathological state which is an accompaniment of light weight urine is diabetes insipidus, and it is also remarked in Bright's disease, with deficient elimination of urea.

When the record is above 1030 it points to an excess of uraeic products, and to sugar. Before having recourse to the chemical tests, it is well to inquire as to the daily quantity passed, and also as to whether the applicant is obliged to get up at night to void urine, and how often.

Purdy in his work on practical uranalysis and urinary diagnosis calls attention to some fallacies which are encountered in the use of the urinometer:

"A more simple instrument, better suited for general practice, is one constructed on the principle of a hydrometer, termed the urinometer. If carefully constructed and properly corrected, such an instrument will answer all practical purposes. * * *

"The temperature of the urine immediately after being voided ranges from 85° to 95° F.; therefore, in taking the specific gravity of *freshly voided* urine, before cooling, its temperature should be observed, and for every 7 degrees of temperature the thermometer indicates above that upon which the urinometer is standardized, 1 degree should be added to the specific gravity of the urine in addition to that indicated by the urinometer. This is important in the case of the old urinometers, many of which are standardized at 60° F., permitting, as will be seen, an error of 4 or 5 degrees with freshly voided urine if the above correction be neglected."

Reaction. — In taking the reaction the usual procedure is the use of blue and red litmus paper, or the recent modification of "neutral" litmus paper, which latter is turned red by acids and blue by alkalies.

The acid reaction is due to the dissolved acid phosphates, and sometimes to the urates. Occasionally the urine will be found to be alkaline or neutral during the first or second hour after a full meal. This may be caused by an excess of the alkaline salts in the food. In this event, the blue reaction persists in the paper, indicating *fixed* alkali, viz.: the alkaline salts of sodium and potassium. The same reaction may be manifest if the applicant happens to be undergoing the so-called alkaline treatment of rheumatism. If the paper becomes blue through the volatile alkali, that is, ammonia, it will be gradually restored to its original color as the ammonia volatilizes. Alkaline urine, due to fixed alkali, does not tend to form calculi, but if due to volatile alkali the tendency is to form concretions in the bladder,

and to create serious bladder trouble. The so-called "mixed phosphate" calculus is frequently the attendant result.

ALBUMIN. — When albumin escapes into the urine it remains dissolved, as it does in the blood-serum, and can only be detected by reagents which change it to an insoluble compound or coagulum. The persistent appearance of albumin in the urine is a bar to life insurance, although, it may be added, the opinions of many Medical Directors seem to have been modified recently, as many cases are now postponed, whereas formerly they were promptly declined. Unless accompanied by casts, albumin is not entirely conclusive of kidney disease. It has been remarked that the most fatal form of Bright's disease, contracted kidney, has little or no albumin. In the presence of an applicant who is a "club man" or has been addicted to the steady use of liquor, it is recommended to make a microscopic uranalysis — when a trace or small amount of albumin is evident. The causes of albuminuria are summarized by Purdy as follows: (1) changes in the kidneys themselves, which impair the integrity of the structures between the vessels and the excretory channels of the organs; (2) alterations in the quality of the blood, which renders its serum-albumin more diffusible; (3) alterations in the d gree of blood pressure. Albuminuria may depend upon one, or indeed all three of the above conditions. Before proceeding to test for albumin, all turbidity should be removed by filtration. A small cone of filter-paper may be set in the mouth of a test tube, and the urine poure l through it. Among the many tests for albumin, *Heller's contact-test*,

Purdy's test, and *Esbach's albuminometer*, hold popular favor among the medical examiners, possibly in the order named.

Heller's test is applied by gently floating the urine upon a column of pure nitric acid, previously placed in the bottom of a test tube. It is recommended to make the amounts of urine and acid as nearly equal as possible. To prevent the mixing of the acid and urine, it will be necessary to hold the test tube in an inclined position, and allow the urine to flow gently down the inside of the tube until contact is had. Albumin is indicated by a white zone at the point of contact. This should not be confused with a certain brownish cloud, which is manifested by the amorphous urates, in concentrated urine. These precipitated urates disappear upon the application of gentle heat.

Purdy's test, or the ferrocyanic test, is described as follows: Into the bottom of a clean test-tube is poured 15 to 30 drops of acetic acid, then about two or three times that amount of solution of potassium ferrocyanide (1-20) is added, and the two thoroughly mingled by shaking the tube. The urine is next added, to the depth of two-thirds of the test-tube. If albumin be present it will be precipitated throughout the whole volume of the urine in the form of a more or less milk-like, flocculent cloud, according to the quantity of albumin present.

"Any precipitate produced by this test, when applied as above, *is albumin, and nothing but albumin.*" — *Purdy's Practical Uranalysis and Urinary Diagnosis.*

Esbach's albuminometer is used to estimate the weight of albumin and is a graduated test-tube, which may be

obtained from all dealers in physicians' supplies. The formula for Esbach's solution is as follows:—

Dissolve 10 grammes of picric acid, and 20 grammes of citric acid in 900 C. C. of boiling distilled water; after cooling add sufficient water to make 1000 C. C.

The citric acid is used to overcome any possible alkalinity in the urine. Fill the graduated tube with urine up to the mark U, and then add the solution to R; close with a stopper or with the thumb, and mix the ingredients without shaking, by slowly reversing the tube about twelve times. After standing upright for some time, the coagulated albumin is apparent, and when it has precipitated as a sediment, the proportion may be read as indicated by the scale on the glass, showing the number of grammes of albumin to the litre of urine.

Tanret's test, or potassio-mercuric iodide test, merits mention, and has a distinct value in making tests for life insurance. Its formula is as follows:

Potassium iodide	3.32 grammes
Bichloride of mercury	1.35 grammes
Acetic acid	20 C. C.
Distilled water to	100 C. C.

Dissolve the potassium iodide and the mercury bichloride separately in water, and mix the solutions; then add the acetic acid, and make the whole to 100 C. C. with distilled water.

Serum-albumin, peptone, albumose, *alkaloids*, and *bile acids* are precipitated by this reagent.

The writer has made a routine practice of starting the chemical uranalysis with this test, and if albumin was subsequently excluded by Heller's or Purdy's test, a cat-

echism of the applicant has sometimes disclosed the fact that he was using some alkaloid, or has called attention to a hepatic derangement which was admittedly being treated, although such treatment was previously denied.

The relation between albumin and Bright's disease may be elaborated by the following inquiry: —

When and how was it first discovered?

A. How often has it been found and when?

B. How often not found and when?

Does he suffer with lassitude, sleeplessness, headache, vertigo, dyspnœa, gastric disturbances, or alteration of vision?

Is there a history of dropsy, œdema of feet, or puffiness of eyelids?

Does his appearance show anæmia or pasty complexion?

Do the vessels show atheroma, and is the pulse hard and of high tension?

Is there any hypertrophy of the heart and accentuation of the second aortic sound?

Has he noticed increase or diminution in quantity and frequency of micturition?

Does he arise at night to void urine, and how often?

Sugar. — "The generally accepted belief is that sugar is absent from healthy urine. It is always advisable before testing for glucose to make sure of the absence of albumin."— *Holland.*

"The continued excretion of grape sugar in appreciable quantities belongs exclusively to diabetes mellitus, and it is the most certain symptom of that disease. Its great clinical importance lies in the fact that it ordinarily

becomes apparent at a time when all other symptoms of diabetes are wanting. In such cases, however, one can be certain that diabetes exists only when, by repeated investigation, grape sugar is found, and especially when its quantity is observed to increase with the administration of other carbohydrates, as cane-sugar, and still better, starch."— *Von Jaksch.*

Alcohol seems to favor the appearance of glycosuria.

Holland's Fehling solution presents a reliable test for sugar, and may be made by dissolving 28 grains of copper sulphate in an ounce of pure glycerine. Add about 5 drops of this solution to an inch of liquor potassa. The mixture will produce a blue solution, which should be brought to the boiling point. Then add about 10 drops of the suspected urine, and boil the top of the column, and the presence of sugar will manifest itself by the characteristic reduction of the copper solution.

The presence of the earthy phosphates will change all forms of Fehling's solution by precipitating a grayish deposit, which must be distinguished from the yellow or red precipitate, the latter alone denoting sugar.

The Phenyl-hydrazin test, which is characterized by Von Jaksch as preferable to all others, may be conducted as follows:—

"Two parts of phenyl hydrazine hydrochloride (say twice as much as will lie on the point of a knife-blade) and three parts of acetate of soda are placed together in a test-tube containing about two drams of urine. If the salts do not dissolve when the fluid is warmed, a little water should be added, and the test-tube containing the mixture placed for 20 to 30 minutes in boiling water. After this

take it out and place in a vessel containing cold water. If sugar be present, even in very moderate quantity, there forms directly a yellow crystalline deposit, which may appear amorphous to the naked eye, but which when examined under the microscope is seen to contain yellow needles detached or arranged in clusters.

"If the urine holds but a very small proportion of sugar, the preparation should be placed in a conical glass, and the sediment examined carefully. In a case where only a mere trace of sugar exists, detached crystals of phenylglucosazone cannot fail to be seen. The discovery of smaller and larger yellow scales, or of powerfully refracting brown granules, must not, however, be mistaken for evidence of sugar."— *Clinical Diagnosis, Prof. Von Jaksch.*

When the examiner has demonstrated the existence of glycosuria, its relation to diabetes may be made manifest by the following questions: —

"Does he suffer with thirst or hunger? Has he ever had eczema, boils or carbuncles? Has he a cataract or any alteration of vision? Is he now on a restricted diet? Has he ever been treated for sugar in the urine? When? Has he noticed any increase in quantity and frequency of urination? Does he arise at night to void urine and how often?" — *Security Trust and Life Insurance Co. of N. Y.*

The microscopic uranalysis, for life insurance purposes, calls for information on the following points: —

Casts (kind), crystals (kind), epithelium (kind), amorphous, other abnormal deposits, pus, blood, mucus.

A $\frac{1}{4}$ inch or $\frac{1}{6}$ inch objective, with 1 inch eye-piece will render efficient service, and answer all requirements.

THE URINE AS A DIAGNOSTIC FACTOR.

Dr. Kernode concludes an article with the above title with the following succinct rules, formulated by a Dr. Formad, and verified by many investigators: —

1. Sediment in the urine has no significance unless deposited within twenty-four hours.

2. Albumin in the urine does not indicate kidney disease unless accompanied by tube casts. The most fatal form of Bright's disease — contracted kidney — has little or no albumin.

3. Every crystal in urine, regardless of shape, is a phosphate, except the oxalate of lime crystal, which has its own peculiar form; urine alkaline.

4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.

5. Mucous casts, pus, and epithelium signify disease of the bladder or disease of other parts of the urinary tract, as determined by variety of epithelium.

6. The urine from females can often be differentiated from the urine of males by finding in it the tesselated epithelium of the vagina.

7. Hyaline casts (narrow), blood, and epithelial casts signify acute catarrhal nephritis. There is much albumin in this condition.

8. Broad hyaline casts and epithelial casts, dark-green granules, and oil casts signify chronic catarrhal nephritis. At first, much albumin; later, less.

9. Hyaline and pale granular casts, and little or no albumin signify interstitial nephritis.

10. Broad casts are worse than narrow casts, for the former signify a chronic disease.

11. The urine should be fresh for a microscopic examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time.

12. Uric acid may, in Trommer's test for sugar, form a peroxide of copper, this often misleading the examiner into the belief that he has discovered sugar. Thus, when urine shows only sugar, the other methods of examination must be used — preferably the lead test.

13. The microscope gives us better ideas of the exact condition of affairs in examination of urine than the various chemical tests. — *Tri-State Medical Journal.*

Has the party ever had any severe illness or injury, or undergone a surgical operation?

The element of severe illness should call forth the name of the ailment, the number of attacks, the date, the duration, the sever ty, the result, including sequelæ, and the name and address of the medical attendant. If there has been a severe injury, the date and nature of the injury should be mentioned, and also how long the applicant was disabled. The name of the medical attendant would also be in order. The record as to a surgical operation should be alike specific as to date, and for what the operation was performed, with its result and remaining effects, if any.

Is there any indication that the applicant is not now entirely well?

The importance of this question becomes apparent when one reflects on the tendency of the active agent to rush his applicants into an examination, in spite of their protests that they are ailing slightly. This is looked upon by the agent as merely an excuse to get out of closing the contract, but the "cold" or slight ailment, often

assumes a greater aspect in the eyes of the examiner, who is not called upon to take any chances, either for himself in recommending an improper risk, or in thereby asking the company to assume an undue hazard. Some companies call for a so-called "commercial report" on their applicants, and in addition to the financial standing this usually embraces a history of the habits, and incidentally tells of the reputed condition of his health, as gleaned among his daily associates. Very frequently, cases are postponed because these reports casually mention that the applicant is just recovering from grip or other illness, and a second examiner is then asked to go over the matter, and report upon the reliability of the gossip, as well as verify or negative the fact that the applicant is actually in good health at the time.

Is the party deaf, dumb, blind, lame, deformed, or maimed in any way?

In view of the extra hazard involved in the affirmative of this question, it behooves the examiner to be on his guard, as, if he fails to notice the impairment, he may be unpleasantly reminded of his short-sightedness through the ubiquitous inspection department, or the "commercial report" mentioned above.

No deaf mute is regarded as a fit subject for ordinary insurance. If deafness becomes apparent, its full history must be given, embracing the points mentioned under the caption of ear disease. Total blindness is, of course, a disqualification, and partial blindness cannot be passed upon intelligently without a chronological and pathological report. Deformities figure extensively in life-insurance records, and are disposed of in accordance with their gravity.

The Manhattan Life Medical Directors say: —

"Applicants with a bodily malformation or deformity may not necessarily be debarred from life insurance, and yet, on the other hand, such malformation or deformity may be so conspicuous as to be a bad advertisement for the company; or again, it may indicate a constitutional condition which renders the applicant undesirable, and which may not make itself manifest in any other way. Such conditions should be closely examined and the facts reported."

Is there any indication which leads you to suppose that the party has led or now leads, other than a temperate life; or that the present or past habits are, or have been, faulty in any respect?

The theme of this inquiry forms the basis of much correspondence with the home office. The writer recently examined a well-known banker whom he had seen almost daily for many years, and had regarded as a sober man. The "Clearing House" record showed this man's rejection several years ago on account of abuse of alcohol. Upon being confronted with this, he claimed not to know of this rejection, but admitted that he had been examined by one company at a time when he was drinking freely, "to drown his sorrow" over a great financial loss, which had practically ruined him. In the meantime, however, he had braced up "financially and otherwise," and was solvent and sober.

Is there apparent in the person examined, any predisposition, either hereditary or acquired, to any local or constitutional disease?

Before answering this question, it is desirable to read over the family and personal history, and discover if any

taint is observable which would impair the risk. This applies particularly to tuberculosis, cancer and syphilis.

Has the applicant the appearance of an overworked person?

The influence of "work and worry" leaves a deep impress on the insurance mortality, either directly in so-called neurasthenia and other diseases, or indirectly in impairing the normal resistance to disease. Hence the apprehension of the "powers that be" at the home office, which must be quieted before a policy can be issued.

Do you consider the party's present residence or occupation affects his longevity unfavorably? If so, how and to what extent?

Before answering this question it would be advisable to study carefully the suggestions given before as to residence and occupation, and form an estimate to correspond with the requirements there noted.

EXAMINATION OF WOMEN.

"The examination of female applicants is often attended with great difficulty, and it is sometimes almost impossible to secure a satisfactory representation of their exact condition. It is on account of this fact, among others, that companies hesitate about accepting them. When female applicants are presented for examination the greatest care should be exercised to particularly ascertain the exact condition, so far as possible, of their reproductive system, in addition to the general facts pertaining to both sexes.

"*Does she menstruate regularly and are her catamenia in sufficient quantity? If not is the difficulty due to some local cause, or is her general condition at fault? Has she*

any tumors or swellings of any sort? If so, state their location and nature. Is she pregnant? Duration of pregnancy? If yes, she should be postponed until a sufficient time has elapsed after labor to establish her usual good health. *Have her labors usually been easy and natural, or have they been difficult? Has instrumental delivery been necessary?* If possible, ascertain the cause. *Has she passed her climacteric? If yes, was that period accompanied by any unusual symptoms or conditions, either physical or mental? Has she been, or is she married, or is she a widow?* Please give the date of her marriage?" — *Manhattan Life Instructions.*

Among the questions asked by various companies, is an inquiry as to whether she has been treated for any disease of the generative organs. *If so, by whom? Any disease of the breast, past or present? How many children has she had? Date of her last confinement?* If she is nursing, it must be observed what effect, if any, lactation seems to have on her general condition. If the applicant is light weight, or the season is summer, a postponement is usually ordered until the child has been weaned. The husband's occupation is asked by many companies. It is also asked, "*Is any one dependent upon you for support?* If so, state names, and ages on blank space."

In case a miscarriage is admitted it is well to learn if she has since had a labor at full term. One company asks the question, "*Are you engaged to be married within the next two years?*"

The statement as to the menopause often brings into question the stated age. The writer has occasionally been told by an applicant said to be under 50, that she had "the change of life nearly 15 years ago," which may be

possibly true, but the home office usually invites the aid of the inspection department at once, in such cases.

The name and address of the usual medical attendant, as well as any special medical attendant, should be learned in all cases of women. Some companies will not issue to a married woman unless her husband is also insured in the same company. "A single woman is required to give satisfactory reasons why insurance is sought and to show occupation and condition of health of father, if living." — *Prudential.*

Some companies issue policies upon female applicants with an *extra* added; others write only restricted policies, such as endowment forms; other companies, again, take them at same rates as male applicants, but all scan them closely from the Medical Director's standpoint, and require absolutely select cases before undertaking to insure them. No examination of a female applicant should be undertaken without the removal of her corsets.

Before completing the examination, some companies insert an additional question to finally arouse the attention of the examiner, so as to obviate errors and omissions. For instance, a certain company asks: "Have you reviewed all answers in this report and application; and are you sure they are clear and complete." Some companies do not call for an opinion or classification of the risk from the examiner, whereas, other companies ask for an opinion based upon a stated grading of risks. Among the various gradings the following may be cited: Do you find the party in perfect health and safely insurable? If safely insurable, do you consider the party a *first class risk*, a *good risk*, or only a *fair risk.*

Do you recommend that a policy be issued? The ma-

jority of the companies ask for an unreserved expression from the examiner as to acceptance or rejection.

CONFIDENTIAL REPORTS.

Many Medical Directors, in their "instructions to examiners," ask to have information sent direct to the home office, which, for any reason, the examiner prefers not to embody in his report.

On this point the advice of the writer is "Don't," as no matter how well-meaning the Medical Director may be, the chances are that "leaks" will occur, so that the agency affected by the report will finally learn of it. In relation to this matter, the following quotation from a well-known Medical Director is *apropos:* "I desire the examiners to be perfectly independent, and to have the courage of their convictions, and fearlessly to place upon paper their recommendations as to the acceptance or rejection, knowing that they will be protected at all hazards, just as long as they continue to do their duty." — *Dr. Frank Wells.*

The question has been mooted as to whether medical reports should be returned to the agent. As the agency force produces the business, it is natural that it should be in close touch and inspire the confidence of the powers that control the companies, hence, if the home office authorizes the agent to have the medical report, it places a trust about which the medical examiner need not concern himself. It is never wise to antagonize the action of the home office, and in accepting an examinership it is proper to accommodate one's views to the discipline prescribed by the rules of the employment undertaken. If this cannot be done, it is better to resign than to be out of harmony with the employers.

SUB-STANDARD LIFE INSURANCE.

A "sub-standard" or "under-average" life may be defined as one presenting some impairment, which would disqualify the applicant from obtaining insurance at ordinary or select rates.

This disqualification may be by reason of defective family history, or may occur in the matter of the personal history.

The number of companies undertaking these risks seems to be extending. The effort is made to compensate for these impairments by putting a "lien" on the policy or by charging an "extra" rate for each impairment.

As a guide to the views held by the insurance experts on this question, the following items are quoted from the instructions of the Security Trust and Life Insurance Co., of New York:

The company entertains applications on all *healthy lives.* The *premiums named* are for "*select lives.*" If there be an *extra risk* on account of occupation, family history, etc., the premium will be made to correspond.

If you have doubts about the desirability of a proposer, say so frankly. Inspection reveals all these defects, and the revelation destroys confidence.

MEDICAL EXAMINATIONS.

The regularly commissioned examiners of this company MUST be used; in localities where this company has not appointed examiners, regularly commissioned examiners of other "old line" companies may be used.

A medical examiner's fee of *three dollars* will in each case be paid by the company direct to the examiner. If

a policy is "not placed," the fee will be charged to the general agent, unless the policy issued should be on a different plan than originally applied for.

Opinions upon the insurability of certain proposed risks will always be cheerfully given, but to avoid disappointment the fullest details should be furnished.

While no set rules can be laid down as to the action of the company on any given class of risks, the following may be used as a guide:—

Albumin. — Only the most favorable cases of albuminuria can be considered. As a rule, no case of persistent albuminuria is acceptable; transient or intermittent albuminuria, without the evidence of renal change, will be considered. These cases must be in other respects select lives.

In all cases of suspected albuminuria the heart and arteries must be examined very carefully for sclerosis, and the eyes for premature arcus senilis.

In all cases where albumin is found in a regular examination, or even suspected, a sample of urine procured at a different time is to be sent, securely sealed and properly labeled, to the designated analyst of the company nearest in point of time, for a second chemical and microscopical examination, and he will report directly to the home office. A pinch of salicylate of sodium may be added for the purpose of preserving the sample.

Alcoholic Liquors — Propositions from persons who use brewed, malt or distilled liquors as a beverage will not be considered unless the *kind* and *average daily* amount are clearly and specifically set forth. Applications containing indefinite and obscure answers on these points will be promptly returned.

Appendicitis. — No applicant who has suffered from appendicitis, where the appendix has not been removed, will be considered within two years from the date of recovery. When the appendix has been removed, if there be no untoward results within one year, the applicant will be accepted. The rating for these cases will be from select life up, according to the case. If there have been recurrent attacks and appendix not removed, three or four years must elapse before the applicant can be accepted, according to the history of the case.

Calculus. — In cases of *urinary* calculus from one to two years, according to severity, must elapse before applying, and in *biliary* calculus from two to three years must have elapsed, but the company must judge each case.

Cancer. — Cancer in family, unless in several generations occurring consecutively, is generally disregarded; but where it appears in the family history in association with consumption, applicants will usually be rated up or declined.

Consumption. — No one who has consumption in any form will be accepted.

Epilepsy. — Epileptics are not accepted.

Fistula. — Recent cases of fistula must be very carefully scrutinized and reported upon in detail to secure acceptance.

Heart. — No application where the applicant is suffering from a heart lesion will be considered unless the examination has been made by an examiner regularly designated by the Medical Department of this company for that service.

It is not worth while to forward applications from ap-

plicants suffering from valvular heart lesions other than mitral stenosis, mitral insufficiencies, aortic stenosis, and in these cases compensation must have been completely established, the pulse must be full and round, and without any abnormal qualities, such as intermittency or irregularity in rhythm and force.

Intermittency and irregularity of the heart's action without the presence of a valvular lesion, where the nervous origin of the irregularity can be distinctly traced, may be considered.

In all cases of heart trouble of any character the pulse must be taken and the heart examined, both in repose and after vigorous exercise.

The policy of the company is to accept neither the young nor the old suffering from heart lesions.

Unless the lesion can be proven to be congenital, cases of valvular disease will not be considered in the young until they have reached such an age that compensation may be considered to be thoroughly established.

Hemorrhage. — If from the throat or nose or bronchi, will receive consideration, but this must be proven before the company will accept. In cases of hemorrhage from the lungs a minimum of six years must pass, and the applicant must agree to live in a climate satisfactory to the company.

Occupation. — See specific "extras" for occupation, etc.

Paralysis. — No case in which paralysis has occurred after the age of 50 need be presented.

Peritonitis. — At least one year must have elapsed after an attack of peritonitis before an applicant will be accepted, the extra then to depend upon

the individual merits of the case. No rate can be predicted.

Prostate. — Permanent enlargement of the prostate gland calls for a very high premium where accepted at all.

Specific Gravity. — Wherever the specific gravity of urine is found to be over 1030 or under 1015, sufficient examinations must be made to determine the reasons therefor, and detailed report made to the company, giving hour when passed and hour of examination.

Sugar. — Cases of transient or intermittent glycosuria can be considered, but there must never at any time have been present in the applicant any of the rational signs of diabetes, such as progressive loss of flesh, persistent thirst, polyuria, etc. In all cases where sugar is present a *quantitative* test should be made after the method of Roberts, Purdy, Fehling, Whitney or some other standard test. Should the examiner be unable to make this test, a sample must be sent to the home office, or to the designated analyst nearest in point of time to the place of examination, as in the case of albumin.

General. — See that all questions are answered definitely. No general answer will be accepted, as "Merchant" for occupation, or "Don't know," without some reason being given.

Realizing that it is impracticable to classify or furnish a table of rates for the various impairments upon life risks (for each case differs in some respect from every other), and that a clearer understanding as to the amount of the probable extra may prove helpful, we submit the following information: —

An unfavorable insurance record is *no bar* with this company.

In nine cases out of ten the extra on acceptable cases will be from $3 to $7.50 per $1,000. Where double impairments exist the extra in all probability will be from $5 to $10 per $1,000.

Albumin cases are generally accepted by us at an extra premium of about $8 to $14 per $1,000, unless casts are found.

Sugar cases are similarly rated, provided that applicant has none of the other symptoms of diabetes.

Heart murmurs and irregular pulse at the younger and middle ages are insurable with us at an extra of from $10 to $15, — preferably on an endowment plan, — but no kind of heart trouble is admissible in applicants over 55 years of age.

Family History. — Consumption, cancer or any hereditary disease in family does not disqualify, but is rated according to circumstances.

Age Limit. — Applicants who are physically select are considered up to 65 years of age.

Liquor dealers can obtain a 20-year endowment at book rates if physically select. They can also, however, get an ordinary life or limited payment by paying an extra premium of from $5 to $10.

Lien policies, as a rule, can be secured in lieu of extra premiums, if so desired.

EXTRA PREMIUMS.

Hazardous Occupations.

S. — Select; N. A. — Not Accepted.

Actor	S
Actress	Special
Army Officer (time of peace)	S

Bartender	$5.00 to $10.00*
Saloonkeeper	$5.00 to $10.00*
Bargeman	$5.00 to $10.00
B. B. Player	$5.00
Billiard Marker	$5.00
Bottler	$5.00
Brewer (Prop.)	S
Brewery Emp	$2.50 to $7.50
Bridge Builder	$5.00 to $10.00
Buzz Sawyer	$7.50 to $10.00
Cartridge Maker	N. A
Celluloid Worker	$10.00
Circular Sawyer	$7.50 to $10.00
Crucible Steel Worker	$5.00
Cutlery Finisher	$5.00 to $10.00
" Forger	$5.00 to $10.00
" Grinder	$5.00 to $10.00
" Polisher	$5.00 to $10.00
Distillery Emp	$7.50
Diver	Special
Driver (beer wagon)	$2.50 to $5.00
Electric Employes	Special
" Lineman	Special
Explosives	$7.50 to $15.00
File Maker	$10.00
Fireman (paid dept.)	S. to $5.00
Fisherman	S. to $10.00
Glass Blower	S. to $5.00
Gravity R. R. Emp	S. to $5.00
Grinder (edged tools)	$5.00
Grocer (bar attached)	$5.00
Hotel Prop. (tending bar)	$5.00

* Saloonkeepers, Bartenders, etc., Select on Endowment plans.

Lead Worker.....$5.00
Lighterman.....$5.00
Limestone Burner or Quarrier.....S. to $10.00
Marble Worker.....S. to $10.00
Miner (coal).....$5.00 to $20.00
" (gold, silver and iron).....$2 50 to $7.50
" (lead, zinc and copper).....$5 00
Oil Mill Emp.....$5.00
" Refinery.....$5.00
" Well.....$5.00
Quarrymen.....S. to $10.00
Railroad Brakeman, Construction.....$10.00
" " Freight.....$10.00
" " Passenger.....S
" Car Coupler.....$12.50
" Conductor, Construction.....$10.00
" " Freight.....$10.00
" " Passenger.....S
" Construction Train Laborer.....$10.00
" Engineer, Freight.....$5.00
" " Passenger.....S
" " Pumping Station.....S
" " Switcher.....$5.00
" Fireman, Freight.....$7 50
" " Passenger.....S
" Flagman.....$5 00
" Sectionman.....$5.00
" Signalman.....$5.00
" Switchman (not in yard).....$5.00
" Targetman.....$5.00
" Wrecking Gang.....$5.00
" Yardman.....$7.50

Railroad Yardmaster (active).....$10.00
" " (supervising).....$5.00
Saloonkeeper, Bartender... ..... $5.00 to $10.00*
Sailor $5.00
Slate Quarrier..... ..... $5.00
Smelter, Pyritic..... .....S
" Lead... .....$10.00
Stevedore..... .....$10.00
Zinc Works Emp.....N. A

ODDS AND ENDS.

Keeley Cure applicant: Graduates of the Keeley, or other so-called cures for the drinking habit, must show abstinence for at least five years after cure, must be in good business; domestic environment must be all right, and the applicant must be in a position where he is owning or managing business in some place of responsibility.

A rapid pulse may be temporary produced by exercise, the taking of food or stimulants, or the use of tobacco, tea or coffee. The cause or stimulus should be removed, and the pulse taken under normal conditions before closing the case.

Loss of weight occurring rapidly may indicate the presence of some form of pulmonary disease, or of some affection of the kidneys.

Angular curvatures of the spine require close scrutiny, as any departure from the normal shape of any part of the thorax interferes with a vital operation.

Erysipelas: State parts affected, as well as tendency and frequency of recurrence.

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* Saloonkeepers, Bartenders, etc., Select on Endowment plans.

"Besides the matter of the candidate's physical condition, the subject of the sanitation of his environments should receive careful consideration at the hands of the examiner." Eq.

"*Bone caries*, if of any extent, disqualifies during its continuance." Eq.

"*Chancroid*, disqualifies for a term of six months after initial appearance" (this is to protect against possible errors of diagnosis).

Delirium Tremens: Any history of delirium tremens, whether recent, or in the far past, ordinarily disqualifies permanently.

Pulse: Confirmed over-rapidity (over 90 beats per minute) under-rapidity (under 50 beats per minute) of the pulse rate, or systematic irregularity of the pulse, ordinarily disqualifies during continuance.

Sunstroke disqualifies for a term, according to the case. Recurring attacks may disqualify permanently.

Cases indicating *pregnancy* are usually postponed. Unusual care is exercised in the selection of female lives between the ages from 40 to 50, or until the menopause has fully past.

If the *pulse* remains persistently over 90 after a due amount of rest it will operate as a disqualification.

If the applicant's figure is "spare" or stoop-shouldered, or is peculiar in any way the particulars should be recorded.

Describe minutely any *deformity*, *malformation* or *injury*.

One company asks for the measurement from the seventh cervical vertebra to the coccyx; which would

naturally disclose any curvature of the spine, and call attention to the compensatory deformity in the chest.

"What is not required of an examiner (although, of course, gratifying when willingly done) is either to insure his own life in the society, or to actively influence others to do so. "Although the point is obvious, it is well for completeness sake to remind the examiner that he should refuse service in any case where an adverse result would be of concern to himself. He should, therefore, not consent to examine an intimate friend or a near relative, if there be any competent physician available for the case, and should, of course, under no circumstances, act as examiner for a proposed assurance of which he is to be himself, either in whole or in part, the beneficiary. Also, it is hardly necessary to add, an examiner should never accept any share of the agent's commission, or any other consideration of value on a case of his own examining." *Equitable Instructions.*

"Christian Scientists" Not Insurable. — In the March issue of the *Cleveland Journal of Medicine*, attention is called to the fact that the fraternal beneficial organization known as the Knights of Honor some months ago ruled that persons believing in the doctrines of so-called "Christian Science" would not thereafter be received into membership. "This action was taken because it was seen to be reasonable not to take any risks upon the lives of persons who refuse to avail themselves of the accumulated knowledge of medical science when they are ill. It is now learned that one of the greatest and most conservative life insurance companies in the world, the Mutual Life Insurance Company of New

York, without making any parade of the matter refuses to issue policies upon the lives of 'Christian Scientists.' These facts are not noted to give these organizations credit for doing that which common sense and good business policy suggest, but to show the very fact that, viewed from the commercial standpoint, the 'Christian Scientist' and faith curist are recognized as persons who do not take average care of their lives. For insurance purposes they are being classed along with habitual drinkers and with those who follow hazardous occupations." — *Medical Examiner.*

X-RAY IN LIFE INSURANCE EXAMINATIONS. — Dr. F. H. Williams (*Boston Medical and Surgical Journal*), says: The organs to be considered by life insurance examiners in the physical examination of candidates are chiefly the kidneys, the lungs, and the heart. Two of these organs — the lungs and the heart — are especially open to inspection by the X-rays, and can be thus examined without removing the clothing. In the lungs, for instance, old foci of tuberculosis give rise to abnormal appearances, which can be seen on the fluorescent screen, and yet which might be overlooked by auscultation and percussion, if not near the surface of these organs. Emphysema of the lungs is best recognized by the X-rays; the effects of old pleuritic adhesions may sometimes be seen by this new method of examination, and thoracic aneurisms may be detected in an early stage.

The size and position of the heart can be determined with greater certainty and exactness by the X-ray than by the older methods. There is no single method of physical examination of the thorax, when properly carried

out, that gives such trustworthy and complete evidence of the normal or abnormal condition of the organs in this part of the body as an examination with the fluorescent screen. From the insurance standpoint it is not so much a question of what the disease is, as whether there is or is not an abnormal condition in the chest.

INDEX.

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